Built
THE NEW WAY FORWARD

Site Establishment Management Plan, SSTOM Project Office (SPO) Building at St Marys WSA – Stage 2 Design and Construct Sydney Metro

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Title	Site Establishment Management Plan - SSTOM Project Office (SPO) Building at St Marys WSA – Stage 2 Design and Construct Sydney Metro
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Version Control

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0	27/10/2022	Draft Review
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Terms and Definitions

Terms	Definitions
AEC	Areas of Environmental Concern, with reference to contamination risks
AEW	Advanced and Enabling Works
Airport	The airport located at the Airport Site. Note: The Airport is referred to in the Act as Sydney West Airport and is commonly known as Western Sydney International (Nancy-Bird Walton) Airport
CCS	Community Communication Strategy
CEMF	Sydney Metro's Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CNVS	Sydney Metro Construction Noise and Vibration Standard
CoA	Conditions of Approval
Council	Penrith City Council, the Relevant Council for this SEMP
CSSI	Critical State Significant Infrastructure
CTMF	Construction Traffic Management Framework
CTMP	Construction Traffic Management Plan
Cwth	Commonwealth
DECC	NSW Department of Environment and Climate Change
Department	NSW Department of Planning and Environment
DNVIS	Detailed Noise and Vibration Impact Statement
DPE	Department of Planning and Environment (formerly Department of Planning, Industry and Environment, DPIE)
ECM	Environmental Control Map
EHG	NSW Environment and Heritage Group
EIS	Environmental Impact Statement
ENM	Excavated Natural Material
Environmental event	An occurrence that identifies actual or potential environmental impacts or non-compliances. Events cans include conversations, inspections, incidents, or failures of process.
Environmental incident	An occurrence or set of circumstances, as a consequence of which pollution (air, water, noise, and land) or an adverse environmental impact has occurred or is likely to have occurred.

Terms	Definitions
Environmental Issue	An occurrence or set of circumstances where Environmental Harm or Non-compliance could occur if not rectified.
Environmental Non-compliance	A breach of an Environmental Requirement originating from Planning Approvals, Environment Protection Licenses, lease agreements, and other requirements documented in environmental management plans.
EP&A Act	Environment Planning and Assessment Act 1979 (NSW)
EPA	NSW Environment Protection Authority
EPBC Act	Environment Protection and Conservation Act 1999 (Cwth)
EPL	Environment Protection Licence under the POEO Act
EPO	Environmental Performance Outcome
ER	Environmental Representative
EWMS	Environmental Works Method Statement
Highly noise intensive works	Works which are defined as annoying under the ICNG, including: (a) use of power saws, such as used for cutting timber, rail lines, masonry, road pavement or steel work; (b) grinding metal, concrete or masonry; (c) rock drilling; (d) line drilling (e) vibratory rolling; (f) bitumen milling or profiling; (g) jackhammering, rock hammering or rock breaking; (h) rail tamping and regulating; and (i) impact piling.
Heavy Vehicle	Has the same meaning as in the *Heavy Vehicle National Law (NSW)*
ICNG	Interim Construction Noise Guidelines
IMS	Integrated Management System
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 terms of this approval
ISO	International Standardization Organisation
KPI	Key Performance Indicator
Low impact works	Includes: (a) survey work including carrying out general alignment survey, installing survey controls (including installation of global positioning systems (GPS)),

Terms	Definitions
	installing repeater stations, carrying out surveys of existing and future utilities and building and road dilapidation surveys; (b) investigations including investigative drilling, contamination investigations and excava€n; (c) site establishment work approved under a Site Establishment Management Plan; (d) operation of ancillary facilities if the ER has determined the operational activities will have minimal impact on the environment and co€nity; (e) clearing in certified areas, minor clearing and relocation of native vegetation, as identified in the documents listed in Condition A1; (f) installation of mitigation measures including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments; (g) property acquisition adjustment work including adjustments to access roads, driveways and boundaries, installation of property fencing, and relocation and adjustments of utilities to property including drainage, water supply and electricity; (h) relocation and connection of utilities where the relocation or connection has a minor impact to the environment as determined by the ER; (i) archaeological test excavation and salvage in accordance with the updated Aboriginal Cultural Heritage Management Plan required under Condition E30; (j) archaeological testing for historical archaeological resources to identify and seek to reduce impact on state significant archaeology where it is proposed, ahead of construction or in association with (a)-(h) above; (k) maintenance of existing buildings and structures required to facilitate the carrying out of the CSSI; and (l) other activities determined by the ER to have minimal environmental impact which may include but not limited to demolition, construction of minor access roads, temporary relocation of pedestrian and cycle paths, the provision of property access. However, where Heritage items on the State heritage register, areas of known or expected non-Aboriginal archaeological potential, or threatened species or threatened ecological communities (within the meaning of the BC Act but excluding certified areas) are affected by any Low Impact Work, that work is construction, unless otherwise determined by the Planning Secretary in consultation with Heritage NSW, EES or DPI Fisheries (in the case of impact upon fish, aquatic invertebrates or marine vegetation). The low impact work described in this definition becomes Construction with the approval or endorsement of a CEMP. Where Low Impact Work has

Terms	Definitions
	already commenced, this is considered to remain as Low Impact Work and is managed in accordance with the framework under which it commenced.
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 (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 the harm to the environment)
Night-time	The hours of 10:00 pm to 7:00 am weekday nights, 10:00 pm to 8:00 am Saturday nights and 6:00 pm to 7:00 am Sunday nights and public holiday nights.
Non-compliance	An occurrence or set of circumstances or development that is a breach of this approval
NML	Noise Management Level as defined in the ICNG
OCCS	Overarching Community Communication Strategy
OOHW Protocol	The Sydney Metro Western Sydney Airport Out of Hours Works Protocol
PCT	Plant Community Type
POEO Act	Protection of the Environment Operations Act 1997 (NSW)
Project	The Sydney Metro Western Sydney Airport
Proponent	The person or organisation identified as the proponent in Schedule 1 of the planning approval. In this case Sydney Metro Authority
REMM	Revised Environmental Mitigation Measure
RMS	NSW Roads and Maritime Services
ROL	Road Occupancy License
SBT	Station Boxes and Tunnelling Works
SCAW	Surface and Civil Alignment Works
Secretary, the	Planning Secretary of the NSW Department of Planning and Environment
SM	Sydney Metro
SM-WSA	Sydney Metro - Western Sydney Airport
SMP	Sustainability Management Plan
SPO	St Marys (SSTOM) Project Office
SSI	State Significant Infrastructure

Terms	Definitions
SSTOM	Stations, Systems, Trains, Operations and Maintenance
Submissions Report	Sydney Metro – Western Sydney Airport Submissions Report
SWMS	Safe Work Method Statement
TfNSW	Transport for New South Wales
TMC	Transport Management Centre
Tree	Long lived woody perennial plant greater than (or usually greater than) three (3) metres in height with one or relatively few main stems or trunks (AS4373-2007 Pruning of amenity trees)

1. Introduction

1.1. Sydney Metro

Sydney Metro is Australia's biggest public transport project. Services between Rouse Hill and Chatswood started in May 2019 on the new stand-alone metro railway system. The Sydney Metro network and program of work includes the Metro North West Line (which opened in May 2019), Sydney Metro City & Southwest (which is currently under construction and due to open in 2024), Sydney Metro West (with construction due to start in 2020) and Sydney Metro – Western Sydney Airport (SM-WSA) (the Project). Potential future extensions to Schofields/Tallawong in Rouse Hill in the north and to Macarthur in the south are under consideration and are being safeguarded but do not form part of the Project.

The Project is shown in Figure 1-1 and would become the transport spine for Greater Western Sydney, connecting communities and travellers with the new Western Sydney International (Nancy-Bird Walton) Airport (referred to as Western Sydney International) (WSI airport) and the growing region.

The Project is being delivered under the Western Sydney City Deal, a partnership between the NSW Government, Australian Government and eight councils of the Western Parkland City. The NSW and Australian Governments have a shared objective of having the rail line operational when WSI airport is planned to open for passenger services.

The new railway line will service Greater Western Sydney and the new WSI airport. It will connect communities and travellers with the rest of Sydney's public transport system with a fast, safe and easy metro service. The Project will link residential areas with job hubs from St Marys through to the WSI airport and the Western Sydney Aerotropolis.

It will provide a major economic stimulus for Western Sydney, supporting more than 14,000 jobs during construction for the NSW and national economies, including more than 250 new apprenticeships. The project comprises components that are located outside WSI airport (off-airport) and components that are located within WSI airport (on-airport).

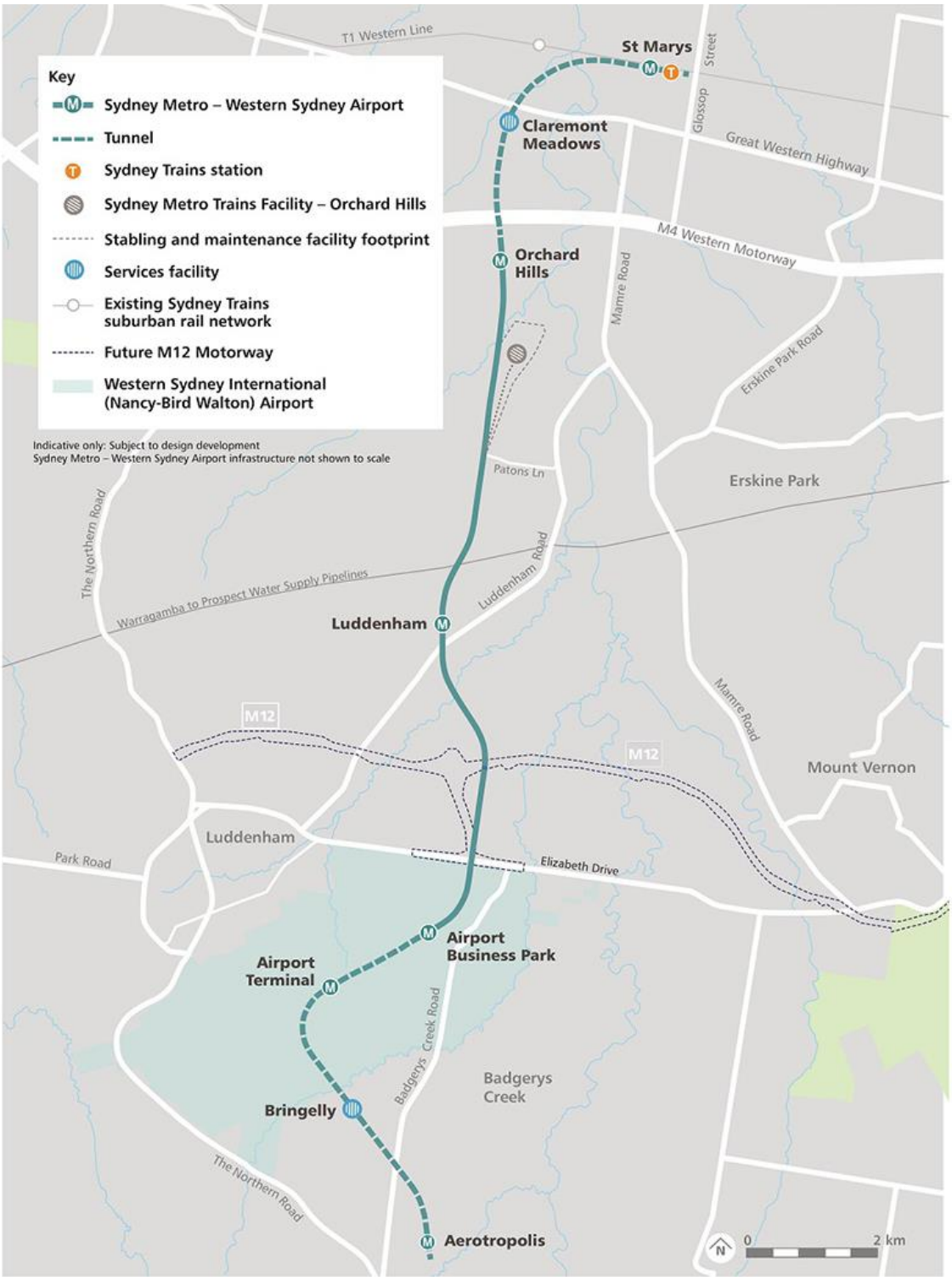

Figure 1-1 - Sydney Metro Western Sydney Airport alignment

1.2. St Marys (SSTOM) Project office

The aim of the St Marys SSTOM Project office (SPO) is to establish a building to accommodate the integrated project teams for SM-WSA at Harris Street St Marys, near St Marys station, during construction of the Project.

This building will seat around 200 people to support Sydney Metro and Stations, Systems, Trains, Operations, Maintenance (SSTOM) contractor staff. The building has planning approval as an ancillary facility used for the construction of the Critical State Significant Infrastructure (CSSI) 10051. Car parking for the building is expected to be located around 120m to the east of the building at a site identified on Harris Street (refer to Section 3.3 for details of site layout and access).

The building will accommodate SSTOM contractor staff, SSTOM Independent Certifier staff, and Sydney Metro staff who will have separate tenancies with workstations and meeting rooms. The three parties will also share a large common area on the ground floor comprising of a reception, lunch area and additional meeting rooms.

The SPO is planned to be operational in early 2023.

1.3. Sydney Metro environmental management system overview

Sydney Metro operates in general accordance with AS/NZS ISO 14001 – Environmental management systems. To provide a structured and systematic approach to environmental management, Sydney Metro developed the Sydney Metro – Western Sydney Airport Construction Environmental Management Framework (SM-WSA CEMF).

The SM-WSA CEMF is a Sydney Metro project framework that has been adapted specifically to set out the environmental, stakeholder and community management requirements for construction of the SM-WSA Project. It provides a linking document between the planning approval documentation and the construction environmental management documentation to be developed by the Principal Contractors relevant to their scope of works, such as this SEMP.

Built will be required to implement and adhere to the requirements the CEMF and this SEMP.

1.4. Built environmental management system overview

Built is committed to establishing and maintaining ours and our clients' work environments with priority given to minimising adverse environmental effects from our activities and fostering a culture of sustainable environmental management.

The Built environmental strategy is the ongoing development of a system based on AS/NZS ISO 14001, legislation and applying the principles of best practice environmental management to our activities. Built is committed to objectives and individual programs by applying proactive approaches to environmental stewardship through:

- Identifying environmental activities, aspects and impacts and applying appropriate environmental control measures

- Minimising effects of our activities on the environment and preventing pollution
- Complying with all applicable environmental laws and regulations, Codes of Practice and Guidelines leading to the development of appropriate monitoring, measurement and review activities
- Working cooperatively with our clients and responsible agencies in exercising environmental due diligence at all stages
- Conducting relevant environmental education and training to improve awareness, knowledge and skills
- Development and implementation of plans and procedures for the effective operation and management of our processes
- Meeting performance standards and key performance indicators, and taking action to improve performance through regular and formal review Refer KPI Matrix
- Communicating with staff, clients, and stakeholders on all areas on environmental performance

All Built subcontractors will work under the Built EMS and the SM-WSA CEMF and SEMP.

Table 1-1 - KPI Matrix

PD08-04 Quality Inspection Forecast Tool

Individual KPIs	PM	PE	SM	FM	PC	CA
On Site Checklist Inspection	No	Yes	No	Yes	Yes	No
Material Traceability Inspection	No	Yes	No	No	Yes	Yes
Subcontractor Drawing Inspection	No	Yes	No	No	Yes	Yes
Off-site Inspection	No	Yes	No	No	No	No

Appendix 12- Project Line Management Involvement Program							
Lead Indicator	**Quarterly Frequency**						
Project Lead Indicator's							
HSE Plan forecast							
Project Risk Register Review	2						
Emergency Response	2						
BSMS Reviews	2						
Consultation forecast							
Project Team Meeting	9						
Site-Wide Address	9						
Consultative Meeting	9						
Consultative Process Inspection	9	**Roles conducting Individual KPI's**					
Individual KPIs		**PM**	**PE**	**SM**	**FM**	**PC**	**CA**
Tool Box Talk/Prestart	40 (Nth) 9 (Sth)	No	No	No	Yes	No	No
Critical Risk Control Observation	2	No	Yes	Yes	Yes	No	No
SWMS Monitoring	2	Yes	Yes	Yes	Yes	Yes	Yes
Supervisor Inspection	9	No	Yes	Yes	Yes	No	No

1.5. Purpose

The purpose of this Plan is to outline the environmental management practices and procedures to be implemented for the establishment of the SPO.

This Site Establishment Management Plan (SEMP) has been prepared to comply with the Minister for Planning and Environment's Conditions of Approval (CoA) for the Project and the environmental mitigation measures from the Environmental Impact Statement (EIS), as revised in the Submissions Report.

Built has been engaged to carry out the construction and commissioning of the SPO as described in Section 3.

This SEMP provides specific management measures to ensure that Built's works are carried out so as to manage environmental aspects of the Project in a responsible and sensitive manner. Implementing the SEMP and the Conditions of Approval effectively will ensure that the Project meets regulatory and contract requirements in a systematic manner and continually improves its performance.

1.6. Consultation

1.6.1. Consultation for preparation of this SEMP

This SEMP must be prepared in consultation with the Penrith City Council (Council) and relevant government agencies in accordance with CoA A18. Sydney Metro, in consultation with the Projects' Independent Environmental Representative (ER), determined that for this SEMP, consultation is required with Council and Sydney Trains based on the location of the works. In accordance with CoA A6, evidence of the consultation undertaken must be submitted with the SEMP. The evidence must include:

- documentation of the engagement with the party 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 and a summary of the issues raised by them;
- documentation of the follow-up with the identified party(s) where feedback has not been provided to confirm that the party(s) has none or has failed to provide feedback after repeated requests;
- 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.

Evidence of the correspondence will be provided in Appendix C.

1.6.2. Ongoing consultation

Consultation between Built, Sydney Metro, Penrith City Council, Sydney Trains and the community regarding the management of site establishment of the SPO will be undertaken as required in accordance with the SM-WSA Overarching Community Communication Strategy (OCCS).

1.7. Certification and approval

This SEMP must be submitted to the Environmental Representative (ER) for endorsement one (1) month before the commencement of construction of the SPO, or as otherwise agreed with the ER. The SEMP must be endorsed by the ER before the commencement of site establishment works of the SPO, in accordance with the Project Staging Report (Rev 7.0).

The SPO may be used following commissioning subject to the ER confirming its operation will have to have minimal environmental impact. ER confirmation of this would be in the form of a Low Impact Work Approval.

2. Environmental Requirements

This SEMP is required to ensure that impacts to the local community and the environment from the SPO site establishment activities are minimised. To aid in achieving this objective, the CoA, REMMs, Performance Outcomes and other Sydney Metro requirements relevant to site establishment are described, scheduled and assigned responsibility. Environmental requirements are sourced from the:

- Sydney Metro - Western Sydney Airport Environmental Impact Statement (EIS)
- Sydney Metro – Western Sydney Airport Submissions Report, including the revised performance outcomes and revised environmental mitigation measures
- NSW Conditions of Approval (23 July 2021)
- Sydney Metro WSA Construction Environmental Management Framework (CEMF).

2.1. Relevant legislation and guidelines

Relevant environmental legislation, guidelines and standards are identified below.

2.1.1. Legislation

Legislation and regulations relevant to this plan include:

- *Biodiversity Conservation Act 2016* (BC Act)
- *Biosecurity Act 2015* (Biosecurity Act)
- *Contaminated Land Management Act 1997*
- *Dangerous Goods (Road and Rail Transport) Act 2008*
- *Environmental Planning and Assessment Act 1979* (EP&A Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
- *Environmentally Hazardous Chemicals Act 1985*
- *Heritage Act 1977*
- *National Parks and Wildlife Act 1974*
- *Protection of the Environment Operations Act 1997* (POEO Act) and the Protection of the Environment Operations (General) Regulations 2009 (POEO (General) Regulations
- Protection of the Environment Operations (Waste) Regulations 2014
- *Roads Act 1993*
- *Waste Avoidance and Resource Recovery Act 2001* (WARR Act)
- Penrith Local Environmental Plan 2010 (Penrith LEP).

2.1.2. Guidelines and standards

Guidelines and standards that are relevant to site establishment and this plan are summarised in Table 2-1 - below.

Table 2-1 - Relevant guidelines and standards

Guidelines and standards
Assessing Vibration: A Technical Guideline (DEC 2006)
Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC, 2007)
Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DECC, 2008)
AS/NZS 4282:2019 Control of the Obtrusive Effects of Outdoor Lighting
Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC/ ARMCANZ, 2000)
British Standard 7385: Part 2 ""Evaluation and measurement of vibration in buildings"
Interim Noise Construction Guideline (ICNG) (EPA, 2009)
German Standard DIN 4150-3: Structural Vibration -effects of vibration on structures
Managing particles and improving air quality in NSW (EPA 2013)
Managing Urban Stormwater: Soils and Construction. Volume 1: 'Blue Book', Landcom (2004)
Relevant Australian Standards in the series AS/NZS 1158 – Lighting for Roads and Public Spaces
Sydney Metro Environmental Incident and Non-compliance Reporting Procedure
Sydney Metro Construction Environmental Management Framework (CEMF)
Sydney Metro Construction Noise and Vibration Standard (CNVS)
Sydney Metro Overarching Community Communications Strategy (OCCS)
Sydney Metro Unexpected Heritage Finds Procedure
Sydney Metro WSA Construction Traffic Management Framework

2.2. Minister's Conditions of Approval

This SEMP has been prepared in accordance with CoA A18 Site Establishment Management Plan. Table 2-2 below provides a cross reference to indicate where the requirements of CoA A18 is addressed in this Plan. These CoA and specifically relate to the development of the SEMP

Other applicable CoA, REMMS and requirements from the CEMF relevant to, but not specific to the development of this Plan, have been listed in Appendix A. A cross reference is also included to indicate where the CoA is addressed in this Plan or other Project management document.

Table 2-2 - CoA A18 applicable to this Plan

Requirement	Details	Reference
A18	Before establishment of any ancillary facility (excluding exempt or complying development, minor ancillary facilities determined by the ER to have minimal environmental impact and those established under Condition A22 and those considered in an approved CEMP), the	Section 1.7

Requirement	Details	Reference
	Proponent must prepare a Site Establishment Management Plan which outlines the environmental management practices and procedures to be implemented for the establishment of the ancillary facilities. The Site Establishment Management Plan must be prepared in consultation with the Relevant Council(s) and relevant government agencies. The Site Establishment Management Plan must include:	
A18 (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)	Section 3
A18 (b)	figures illustrating the proposed operational site layout and the location of the closest sensitive land use(s)	Section 3
A18 (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 before the commencement of site establishment work;	Section 5
A18 (d)	details of how the site establishment activities described in subsection (a) of this condition will be 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 intersection (c) of this condition; and	Section 5.2
A18 (e)	a program for monitoring the performance outcomes, including a program for construction noise monitoring, where appropriate or required.	Section 7.4
A18	Nothing in this condition prevents the Proponent from preparing individual Site Establishment Management Plans for each ancillary facility.	Section 1.5

3. Site establishment work

3.1. Overview

Built will be responsible for the design, off-site fabrication, delivery, installation, and fit out of the SPO building.

The SPO is intended to be a modular building located on the current at-grade car park on Harris Street, North St Marys. Due to the modular construction methodology being employed, the building will be fabricated off-site as much as practicable. Due to this, site establishment would not be required until the building is ready to be constructed on site following the completion of design and off-site works.

3.2. Site Establishment Activities

Built will establish a presence on site, include temporary site facilities such as portable sheds, toilets, lighting and fencing. Site investigations (geotechnical investigation) and utilities works will occur prior to construction of the modular building. Refer Figure 3-1 - Site Establishment Plan

Site establishment will seek to minimise disturbance to the existing car park hardstand so that existing drainage design can be utilised. Due to this, there will be minimal civil works involved in the site establishment, however some existing kerbing on the site may require demolition to fit a truck turning area. Screw piles will be used for the building foundations with concrete pile caps. All works within the construction zone will be enclosed by palisade and ATF fencing with a Sydney Metro approved and provided Banner Mesh.

Due to the constrained nature of the site, the nearby site at 19 Harris Street leased by Sydney Metro will be used as a materials delivery and staging area. Construction worker parking will also be located in this area. Since this area is beyond the construction footprint of SSI 10051, all necessary planning and environmental approvals will be addressed separately.

Construction materials will be transported from 19 Harris Street to the SPO site on a flatbed semitrailer/Manitou. Vehicles will turn right out of the staging area at 19 Harris Street, and left into the north-east entry to the SPO construction site. Vehicles will travel around the south of the construction site to exit from the north-west exit. A CTMP is being prepared for the works and this document will be submitted to the Traffic Committee for consultation and approval of all swept paths prior to commencing any works.

A crane will be erected on site to be utilized in the construction process of the modular building. Scaffolding and scissor lifts will provided for all personnel to access work areas and amenities

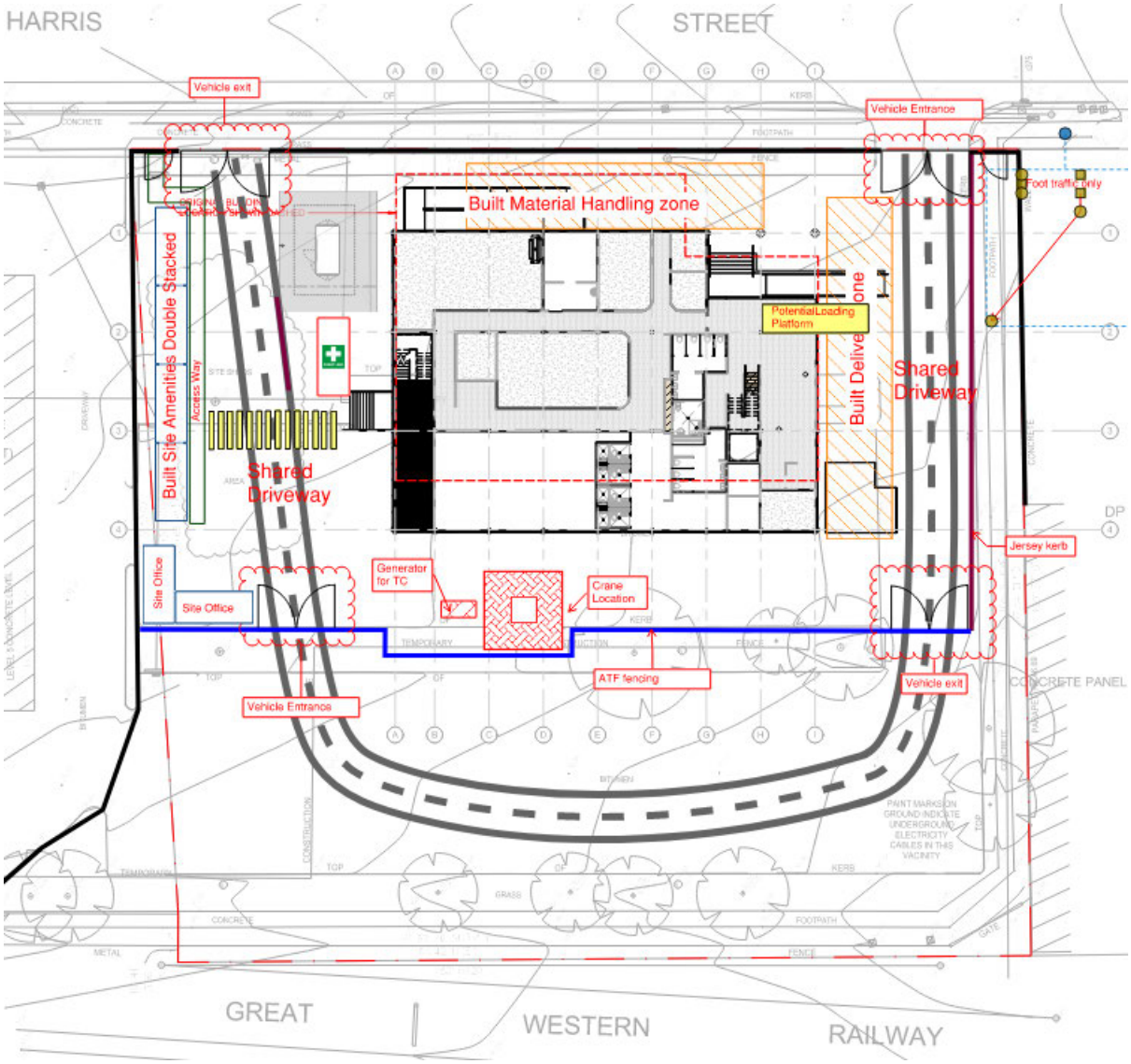

Figure 3-1 - Site Establishment Plan

3.3. Site Layout and Access

Access and egress from the SPO site will be via Harris Street only. Oversized vehicles may encroach on the public footpath under traffic control. Figure 3-2 below shows the location of the SPO site in relation to surrounding sites. The works will be implemented in order to not obstruct public infrastructure or neighbouring properties without undertaking a communications and consultation process.

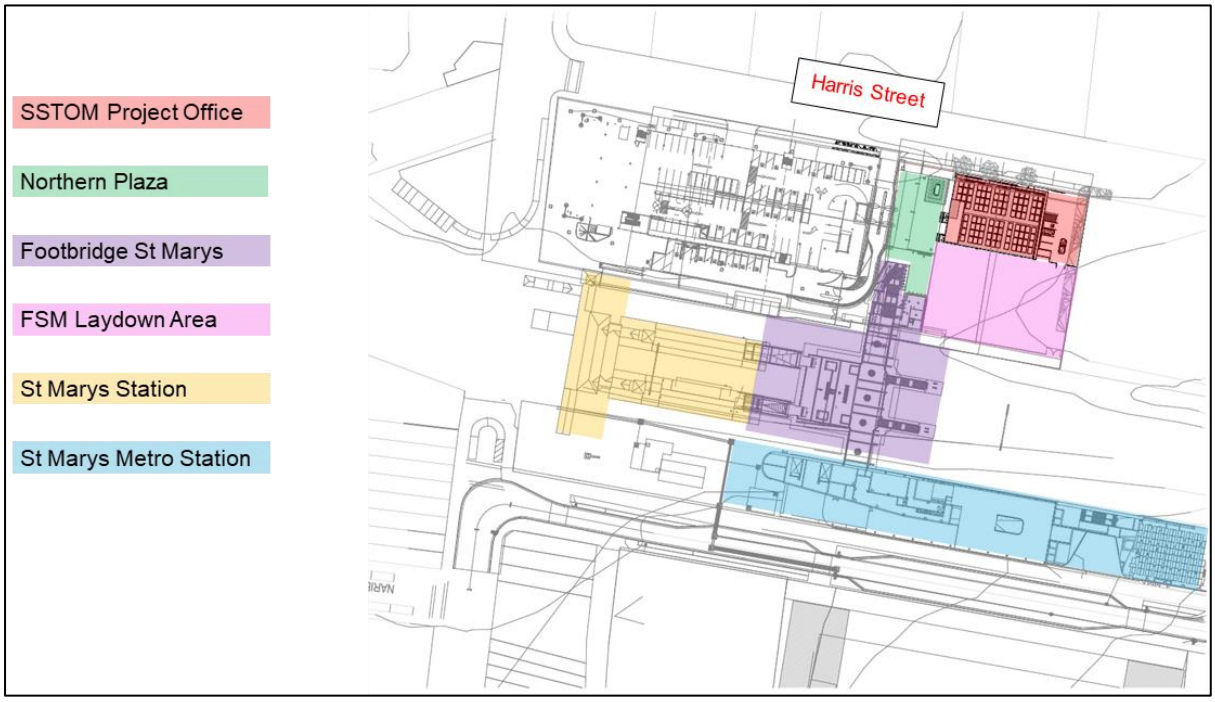

Figure 3-2 - SPO site layout and surrounding sites

3.4. Plant and equipment

Plant and equipment expected to be used for site establishment of SPO includes:

- Forklift
- Telehandler
- Elevated working Platform
- Scissor Lifts
- Mobile Cranes
- Light Vehicles
- Medium Rigid Vehicles
- Diesel Generators
- Hiab/Tilt Tray Vehicles
- Tower Crane

3.5. Working hours

As per CoA E38, the approved working hours are:

- 7:00am to 6:00pm Mondays to Fridays, inclusive;
- 8:00am to 1:00pm Saturdays; and
- at no time on Sundays or public holidays.

As per CoA E39, highly noise intensive work that result in an exceedance of the applicable noise management level (NML) at the same receiver must only be undertaken:

- between the hours of 8:00 am to 6:00 pm Monday to Friday;
- between the hours of 8:00 am to 1:00 pm Saturday; and
- if continuously, then not exceeding three (3) hours, with a minimum cessation of work of not less than one (1) hour.

For the purposes of this condition, 'continuously' includes any period during which there is less than one (1) hour between ceasing and recommencing any of the work.

3.5.1. Out of hours Works

As per CoA E41, work may be undertaken outside the hours specified in CoA E38 and E39 the following circumstances:

a) Safety and Emergencies, including:
   i. for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or
   ii. where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm; or

b) Low impact, including:
   i. construction that causes LAeq(15 minute) noise levels:
      - no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, and
      - no more than the 'Noise affected' NMLs specified in Table 3 of the ICNG at other sensitive land user(s); and
   ii. construction that causes:
      - continuous or impulsive vibration values, measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.2 of Assessing Vibration: a technical guideline (DEC, 2006), or
      - intermittent vibration values measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.4 of Assessing Vibration: a technical guideline (DEC, 2006)

c) By Approval, including:
   i. works which are not subject to an EPL that are approved under an Out-of-Hours Work Protocol as required by CoA E42; or
   ii. negotiated agreements with directly affected residents and sensitive land user(s).

d) By Prescribed Activity, including:

iii. delivery of material that is required to be delivered outside of standard construction hours in Condition E38 to directly support tunnelling activities, except between the hours 10:00 pm and 7:00 am to / from the Orchard Hills ancillary facility;

On becoming aware of the need for emergency work in accordance with (a)(ii) above, the ER, the Planning Secretary and the EPA must be notified of the reasons for such work. The Proponent must use best endeavours to notify as soon as practicable all noise and/or vibration affected sensitive land user(s) of the likely impact and duration of those work.

Applications for any works outside the approved construction hours will be assessed in accordance with the SM-WSA Out-of-Hours Work Protocol as described in Section 6.1.

4. Environmental aspects and potential impacts

4.1. Transport

Traffic impacts during site establishment have been significantly reduced by offsite fabrication of the building. A CTMP inclusive of a Construction Worker Transportation Strategy has been developed for the Construction works associated with this project is currently under consultation by the relevant authorities in accordance with the Construction Traffic Management Framework.

Traffic impacts will include a large number of heavy vehicle movements which are required to deliver the prefabricated elements of the building to the site. The Modular elements will be unloaded by crane and placed directly into the assembly/staging area for make safe items should this be required. It is not expected that activity will require partial or full occupancy of Harris Street adjacent to the site, all works are planned to be completed within the construction boundary. Should there be a requirement for partial or full occupancy of Harris St Built will liaise directly with Penrith City Council for ROL's and the like. It is expected that during the construction process of the SPO that there may be approximately 2-3 semi-trailer deliveries daily of modular elements during the structure phase over a period of 4 weeks. These items being the structural steel, CLT and façade elements. Through the fit-out and finishes process most deliveries will be via midsize/rigid vehicles. Through this process the lift component supplied by Sydney Metro will come via semi-trailers

Oversized vehicles may need to encroach on the public footpath under traffic control during this period. During this period, traffic control will ensure safe and efficient routes are provided for pedestrians, cyclists and road users including maintaining access to St Marys Station. Oversized vehicles will access the arterial network as soon as practicable on route to, and immediately after leaving, the site.

Following assembly of the prefabricated elements, traffic impacts would be minimum for fit out of the building. This period is not expected to require road occupancy or traffic control.

Once the building is operational, it is expected that the occupants would generate some traffic movements in the area to access the building, however, use of public transport will be encouraged. The car park servicing the building will be located off site, however, the car park is outside of the scope of this SEMP.

4.1.1. Contractor Parking Strategy

As previously mentioned, the site benefits from excellent access to public transport services, being situated

within 100 metres of the St Marys Railway Station and within 200 metres of numerous bus services. This is expected to result in high levels of public transport usage by workers, thereby ensuring that the construction activities will generate minimal parking demands. Should contractors access the site using private vehicles, they shall be required to utilise off-street public car parks as identified within Figure 4-4.

As confirmed by the building contractor, it is expected fitout & finishes will require the most workers, in the order of 40 on-site workers. Given the location of the site the following is noted:

- Approximately 50% of workers are expected to utilise alternative modes of transport for journeys to / from the site, including public and active transport.
- An average car occupancy of 2 persons / car is expected for workers travelling to / from the site in a private vehicle.

It is evident from the above that the expected maximum car parking demand will be in the order of 10 car spaces throughout construction. Any contractors that drive a private car to the site shall be required to park within the neighbouring off-street public car parks. Accordingly, all contractor parking demands will be accommodated, with no reliance on on-street parking.

Figure 4-4 - St Mary's City Centre Off-street Car Park Locations (Figure 7 of the CTMP)

4.2. Parking

The SPO will result in the long-term removal of approximately 126 commuter car parking spaces. However, in July 2022, Transport for NSW delivered a new multi-storey car park at St Marys Station. The new car park provides over 250 additional parking spaces for commuters at St Marys Station resulting in an overall net increase of more than 100 commuter parking spaces in the area. These new spaces will help manage local parking changes ahead of the construction of the SM-WSA Project.

4.3. Noise and vibration

The EIS assessed the potential noise and vibration impacts during the construction of the SPO and identifies mitigation measures to address these impacts. The full noise and vibration assessment is provided in EIS Technical Paper 2 (Noise and vibration).

The closest sensitive receivers to the SPO are the industrial and commercial premises in Harris Street to the north of the site and located in the carpark adjacent the SPO. The nearest residential receivers are located approximately 150m to the south of the site in Station Street (refer to Figure 4-5).

Noise impacts during site establishment have been significantly reduced by offsite fabrication of the building. This will reduce the duration of the construction period and associated noise and vibration impacts to surrounding receivers (industrial and residential).

The main noise and vibration impacts are expected to occur during service tap into sewer and stormwater, screw piling and pouring of pile caps and when the prefabricated elements of the building are delivered to site and assembled. Mobile cranes, generators and power tools are the main source of noise and vibration on this project.

Figure 4-5 Noise and vibration sensitive receivers around the SPO (Source: EIS Figure 10-2a)

It is expected that delivery and installation of the prefabricated elements will involve consecutive nights of works that could exceed the out of hours noise management levels at the residential receivers to the south

of the rail line. The industrial premises in Harris Street have potential to be highly noise affected during approved working hours when the premises are occupies. The industrial premises are unlikely to be noise sensitive during the out of hours works periods when they are not occupied. Built are currently undertaking a DNVIS with our acoustic consultant which will address the OOHWs application and E57 notification.

4.4. Soils and contamination

The EIS Chapter 16 - Soils and Contamination identified the commuter carpark at 36-38 Harris Street, St Marys (the SPO site) as a medium risk Area of Environmental Concern (AEC 1) based on the following contamination sources:

- former fuel, oil and chemical storage and use associated with historical wrecker's yard and associated workshops;
- past use of hazardous building materials (impacts on soil); and
- off-site industrial land use including a former bus depot and plastic manufacturing businesses.

In accordance with the SMWSA CSSI Staging Report (Rev 7.0), the requirements for detailed site investigation under the Planning Approval (CoA E92) and the Submissions Report (REMM SC2 and SC3) do not apply to the SPO.

For the construction of the SPO, GHD (2022) completed a contamination investigation of the SPO site in April 2022. The purpose of the assessment was to inform the in-situ preliminary waste classification of soils subject to bored piling for the demountable foundations. The assessment was based on two boreholes that were drilled to the depth of bedrock. Samples were collected at 1.5m intervals within the soil profile and analysed at a National Accredited Testing Authority (NATA) laboratory to allow for classification in accordance with the NSW EPA Waste Classification Guidelines: Part 1 Classifying Waste (NSW EPA 2014).

The results of the preliminary in-situ classification indicate that the soils around the SPO are classified as General Soil Waste (GSW). If excavation works and offsite disposal of soil material is required as part of the SPO construction, further sampling must be undertaken to confirm the preliminary assessment. It is noted that the volume of potential material to be disposed offsite is small due to the proposed construction methodology of using screw piles and the building itself being above-ground and requiring very limited excavation.

An Unexpected Finds procedure (Appendix G) has been prepared should the piling works or minor excavation uncover contamination

4.5. Sustainability

The SPO building design and specification will be aligned with 5 Star Green Star Buildings, however certification will not be sought due to the Green Building Council of Australia having no process for certifying temporary offices.

Sydney Metro has committed to Climate Active Carbon Neutral certification for WSA, which will include the IPO carbon emissions.

Potential sustainability features to be considered during design will include but are not limited to:

- Rooftop solar PV
- Rainwater harvesting and reuse

- Energy efficient design
- Consideration of acoustics (proximity to rail corridor)
- Indoor environment quality (lighting, air quality, non toxic materials)
- Disassembly plan for modular building to be removed and re-used in a different location

Built are currently working through the equivalency pathway provided by Sydney Metro to determine the 5 star Green Star building and which credits can meet the requirements provided in the RFT. A draft Best Endeavours Green Star Pathway has been provided in Appendix E for reference, however this is subject to change as the works progress.

4.6. Resource management

As many building elements as practicable shall be prefabricated off-site, minimising construction waste and unnecessary transportation. If the end-state of the building does not allow for re-use of the building, the building can be dismantled and recycled off-site, improving rates of material recovery.

The building will also be designed to minimise the ground disturbance by utilising screw or bored piles rather than extensive strip footings. This will minimise spoil generation as well as the need to import material.

The use of dangerous goods for the purpose of construction will be mitigated by storing of these materials in accordance with the following

- Product Safety Data Sheet
- Storage and Handling of Dangerous Goods Code of Practice (WorkCover NSW, 2005)
- Hazardous and Offensive Development Application Guidelines: Applying SEPP 33 (Department of Planning, Industry and Environment, 2011)
- Work Health and Safety Act 2011 (Commonwealth and NSW)
- Environmentally Hazardous Chemicals Act 1985 (NSW)

Spill kits will be readily available on the site and periodically reviewed to ensure they are always available for use as required.

4.7. Heritage

The SPO is located next to St Marys Railway Station which is a heritage listed item of State significance. The heritage listing is located with the construction footprint of the SM-WSA. The establishment of the SPO will not result in direct impacts to St Marys Railway Station, however may contribute to the temporary indirect impact to the Station as a result of changes to their visual setting. Built will use non-invasive construction methodologies such as off-site prefabrication to mitigate any potential impacts resulting from vibration to the heritage listed St. Marys Railway Station.

Noting however a Construction Noise and Vibration Management Plan will be prepared for this project in-line with the CSSI requirements noting elevation with the relevant DIN requirements. However, it is anticipated that the vibration caused by the rail occurring with the rail corridor itself will exceed that of the construction methodology being used for the construction of this project.

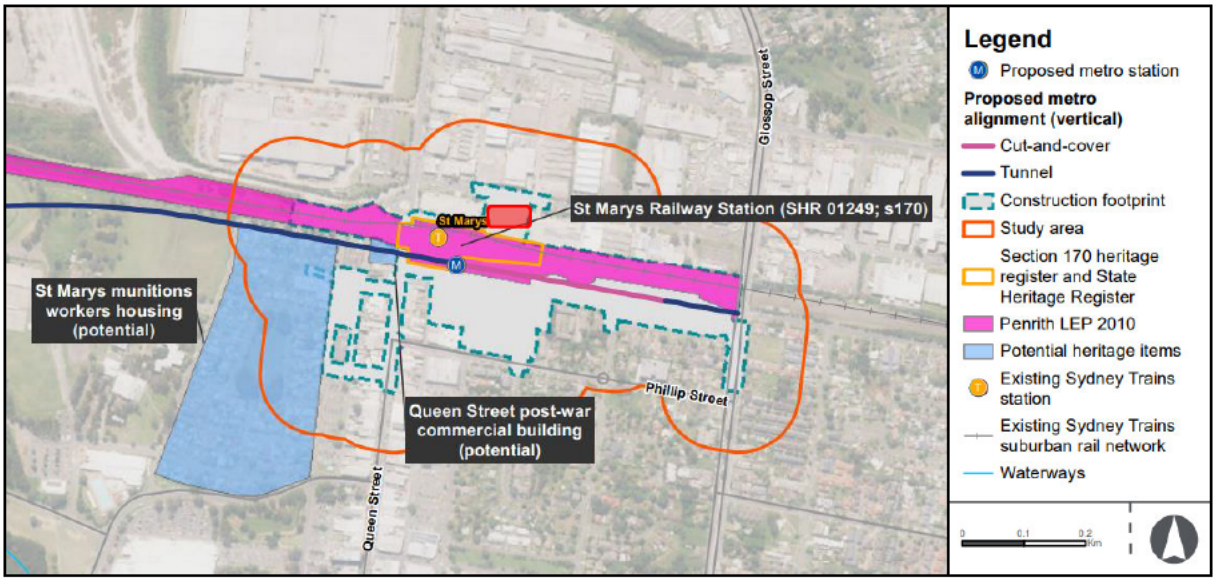

Figure 4-6 Non-Aboriginal heritage items near the SPO (Source: EIS Figure 12-1)

The SM-WSA St Marys construction site including the SPO is not located in an area of archaeological (Aboriginal heritage) sensitivity.

4.8. Land use and property

The proposed SPO site is located at Harris Street, St Marys (Lot 1 and 2 DP1127305) within the Penrith LGA. The site is Zones General Industrial (IN1) under the Penrith Local Environmental Plan 2010. Surrounding land uses General Industrial, Mixed Use (B4) and Residential (R2, R3 and R4). The nearest residential receivers are located approximately 150m to the south of the site in Station Street (refer to Figure 4-5).

4.9. Landscape and visual

In accordance with CoA E62, the SPO must be constructed in a manner that minimises visual impacts. Although a temporary structure, the bespoke design of the SPO will positively contribute to surrounding visual amenity with finished as a permanent fixture including hard and soft landscaping.

4.10. Biodiversity

A number of trees are located on the SPO site consisting of Spotted Gum (*Corymbia maculata*) and Narrow-leaf ironback (*Eucalyptus crebra*). Although these species are endemic to the plant community types (PCTs) of the area, the trees within the SPO are planted and are not within an area of mapped PCT.

Built have introduced mitigation measures to retain the existing trees on the site. This includes increasing the height of the tower crane used for construction purposes so that the slewing height of the crane surpasses the top of tree canopies. Tree Protection Zones will be put in place for any trees that are being retained during the construction works of SPO. For further information regarding these trees, referred to the At Grade Car Park FSM CEMP.

Onsite inspections to ensure fencing is checked to ensure trees are kept outside the construction boundary will be completed.

In accordance with CoA E13, any trees removed within the SPO will need to be offset with replacement trees at a ratio of 2:1. Built will seek Sydney Metro's approval 10 business days prior to removal of any trees and ensure they are included in Sydney Metro's Tree Survey (refer Table 6-1 for specific mitigation measures).

4.11. Cumulative construction impacts plan

Cumulative impacts of the wider WSA Project were assessed as part of the EIS and are summarised as follows:

- Transport – Temporary increase in construction vehicles on the road network due to the overlapping construction activities from the M12 Motorway, Elizabeth Drive and Western Sydney International.
- Noise and vibration – Cumulative noise impacts on sensitive receivers at St Marys arising from the St Marys Intermodal and the St Marys Commuter Car Park Extension. Similarly, noise sensitive receivers at Badgerys Creek would be affected by the future M12 Motorway.
- Biodiversity – Potential cumulative biodiversity due the interaction of surrounding projects, including the Western Sydney International, M12 Motorway and The Northern Road.

When considered in isolation, the environmental and community impacts of an individual project or stage of project may not be significant; however, when combined with the effects of other developments, the resultant cumulative effects can potentially result in a greater extent, magnitude or duration of impacts.

Specifically at St Marys, there will be a number of Sydney Metro contracts working in the station precinct.

The management of cumulative impacts will occur in accordance with the Sydney Metro Cumulative Construction Impacts Management Plan. Reflecting the requirements of the Plan, coordination and consultation with the following stakeholders will occur, as required and as per relevant third party agreements, to coordinate interfacing projects:

- DPE (through Sydney Metro)
- Sydney Metro (with respect to other Sydney Metro packages of works)
- Western Sydney Airport
- TfNSW (via the Traffic and Transport Liaison Group)
- Western Parkland City Authority
- Sydney Water

- Local Councils
- Emergency service providers
- Utility providers.

The key stakeholders for St Marys works would be other Sydney Metro packages and TfNSW (Traffic and Transport Liaison Group and Sydney Trains).

The procedure for coordination and consultation with these stakeholders will include:

- Provision of regular updates of the detailed construction program, construction sites and haul routes at scheduled interface meetings
- Identification of key potential conflict points with other construction projects (e.g. SBT Works)
- Development of mitigation strategies to manage the cumulative impacts of the SPO Works and other interfacing projects. Depending on the nature of the conflict, this could involve:
    - Adjustments to the construction program, work activities or haul routes; or adjustments to the program, activities or haul routes of other construction projects
    - Coordination of traffic management arrangements between projects or work zones
    - Coordination of noise generating activities and respite, such as out of hours works and highly noise intensive works.

The level of coordination required to manage cumulative impacts will be dependent on the level of concurrent works in the vicinity of St Marys. When concurrent works are occurring, regular meetings will be undertaken to develop coordinated community notifications, share out of hours works schedules and share information on stakeholder preferences.

Further details on the management of cumulative impacts across the Project are included in the Sydney Metro Cumulative Construction Impacts Management Plan.

4.12. Community Communications

The Sydney Metro CCMS will outline the framework for managing complaints, enquiries and escalation processes throughout the project lifecycle. Complaints are first managed by the PDCT and any unresolved complaints may then be escalated to Sydney Metro. The Director, Project Communications is the designated complaints handling management representative for the escalation of complaints for independent review. Complaints would only be escalated for independent review following a full and thorough investigation by the PDCT and Sydney Metro. The Director, Project Communication may also refer a complaint to independent mediation at any stage in the complaint management process.

Following any escalation for independent review, the Environmental Representative would make an assessment on the adequacy of Sydney Metro's response to the complaint in accordance with this plan, the CCMS and the project's planning and assessment process, in consideration of what is fair and reasonable.

Following this review the Environmental Representative would either make a recommendation to close the complaint and notify the Secretary or provide recommendations for consideration by Sydney Metro on any additional actions that could be undertaken to assist in resolving the complaint.

The Environmental Representative may also refer any reasonable and unresolved complaint for independent mediation, at which time a qualified mediator would be engaged by the project. This process is outlined in figure 6.

This process does not apply to complaints specifically relating to the Western Sydney Airport site which would be managed and escalated to Western Sydney Airport in accordance with the CCMS.

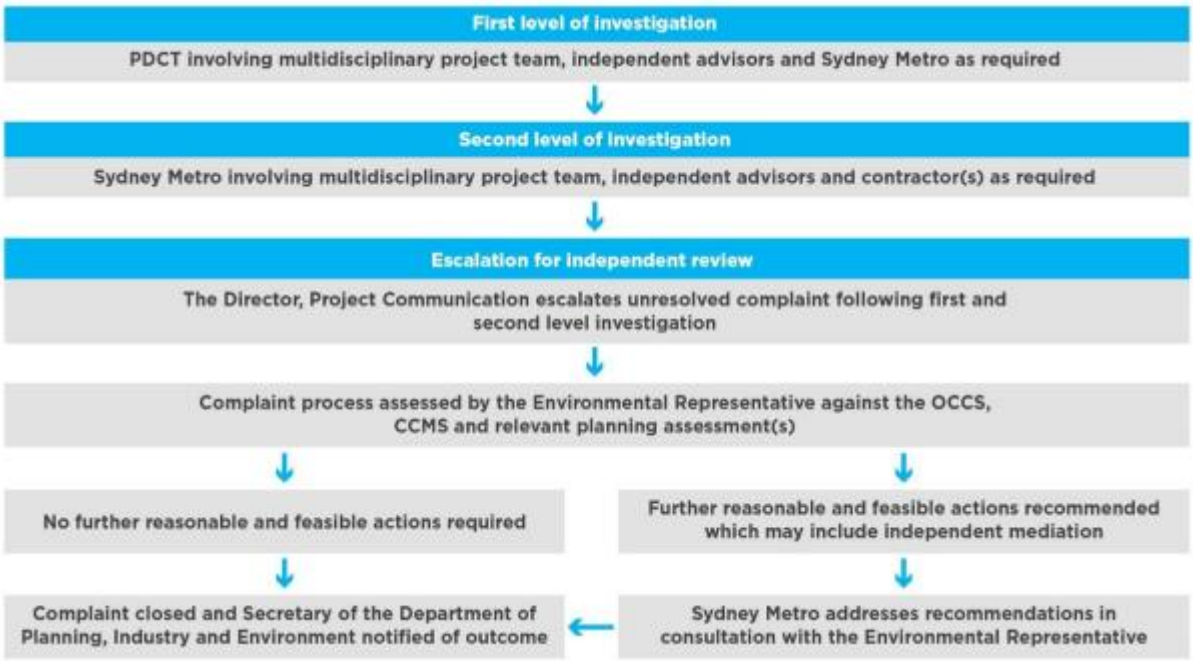

Figure 4-7 - Sydney Metro Complaint Escalation Process

4.13. Waste Management

The SPO is being constructed using the principals of Design for Manufacture and Assembly (DfMA). The main structural and building envelope will be manufactured off-site and delivered in order to assemble on-site without the need for conventional waste generating activities during the construction of these elements.

The objectives of Waste Management include:

a) Identify, quantify and classify waste streams to be generated during demolition, excavation and construction to address the Waste Classification Guidelines (EPA, 2014);
b) Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site;
c) To describe measures to be implemented to manage, reuse, and recycle and safely dispose of the waste;
d) To maximise reuse and recycling of construction materials and materials from the site; and
e) To encourage building design techniques in general which minimise waste generation;

As can be expected waste materials inwards vary considerably and are delivered to the Recycling Centres in tipping and non-tipping vehicles or in skip bins. Of the wastes inwards approximately 90% is recovered

and recycled as materials outwards and the balance 10% to landfill. Waste materials inwards are processed to achieve the maximum recovery of resources and the minimum of un-recoverable material for disposal.

Typical Composition of BINGO's Wastes Inwards

Wastes Inwards	Percentage (approx.)
Heavy Recyclable Materials	45%
Light Recyclable Materials	35%
Metals	10%
Non-Recyclable Materials	10%
Total	100%

Table 4-8 - Typical composition of Wastes Inwards

Heavy Recyclable Materials:

- Soil
- Dirt
- Sand
- Rubble
- Brick
- Concrete
- Tiles
- Stone
- Asphalt

Light Recyclable Materials:

- Timber
- Green Waste
- Cardboard/ Paper
- Plastic
- Plasterboard

Metals:

- Ferrous (steel, black iron)
- Non-Ferrous (copper, wire, aluminium, stainless)

4.13.1. Waste Contractor Requirements

The current legislation determines that the generator of waste is the owner of the waste until the waste crosses a calibrated weighbridge into a licensed facility. Waste and demolition contractors to construction contractors are the primary transporters of waste off-site, accordingly, waste contractors will be required to provide verifiable monthly reports on waste reused, reprocessed or recycled (diverted from landfill) or waste sent to landfill. These reports have a direct bearing on the generator's compliance with the relevant regulations.

The Strategy will be implemented on-site throughout including, singularly or collectively, the demolition, excavation and construction phases.

A Waste Data File must be maintained on-site and all entries are to include:

- The classification of the waste;
- The time and date of material removed;
- A description of and the volume of waste collected;
- The location and name of the licensed waste facility that the waste is transferred to; and
- The vehicle registration and the name of the waste contractor's company.

The Waste Data File will be made available for inspection to any authorised officer at any time during the life of the site works. At the conclusion of site works, the designated person will retain all waste documentation and make this validating documentation available for inspection.

Arrangements will be made with the waste contractor to increase bin supply if there is an unexpected increase in waste generation.

4.13.2. On-site Waste Management & Storage

There will be a designated waste storage area for the disposal and storage of demolition, excavation and construction waste prior to collection. This are will be located conveniently for the work team to use the bins as well as for waste contractors to collect. An indicative location has been provided in section 4.5 of this report. Requirements include

- Construction waste storage is contained wholly within the site
- The routes for movement of waste between work site and waste storage area are to be kept obstruction-free
- The routes for movement of bins and waste between storage and collection points are marked in the site drawing and will be kept obstruction free (if waste is moved between the waste storage area(s)
- The waste bin collection point provided will be accessible for waste collection vehicles. There are no obstructions to pulling up vehicles, turning or reversing and lifting bins.

- Access for waste collection vehicles will not be compromised by construction related activities, vehicles or other consequences of construction staging.
- All waste not being reused on-site will be removed during, or at the completion of the construction works.
- No waste will be left on-site unless it is part of a valid reuse on-site, which is integral to and in place in the design.
- All vehicles entering and leaving the site must have their loads covered.
- All vehicles before leaving the site are to be cleaned of dirt, sand and other materials to avoid tracking these materials onto public roads
- At the completion of the works, the work site is left clear of waste and debris.

4.13.3. Reuse of Construction Materials

Construction Materials and off-cuts can be reused onsite where practicable. An allocated area in the materials lay-down area can be allocated for the storage of materials to be reused.

These items include:

- Plastic buckets
- Timber crates
- Timber off cuts
- Paint brushers and rollers (wrapped in plastic to maintain moisture)
- Plasterboard offcuts
- Carboard boxes.

The Waste Data File will be made available for inspection to any authorised officer at any time during the life of the site works. At the conclusion of site works, the designated person will retain all waste documentation and make this validating documentation available for inspection.

5. Site establishment risk assessment and management approach

5.1. Site establishment risk assessment

This Environmental Risk Assessment identifies activities and associated impacts that could eventuate during the undertaking of low impact works to the selection of appropriate environmental safeguards.

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

- The environmental aspect

- Relative scale of the potential impact
- Type of potential impact
- Likelihood of occurrence.

The identification of risks included a review of the proposed works, the MCoA, REMM, EPBC Act Approval, the Sydney Metro CEMF and review of the environmental risks identified by the EIS and subsequent Submissions Report.

The following risk assessment process has been implemented, together with a review of proposed activities and known risks based on past project experience.

5.1.1. Risk Assessment Process

The following tables outline the risk assessment process using the Sydney Metro Risk Management Standard (SM-17-00000182) steps to identify the appropriate management measures required.

Table 5-1 is used to determine the likelihood that the aspect will have an impact on the environment.

Table 5-2 is used to determine the potential consequence rating of the risk identified.

From these two tables, a risk rating can then be assigned by using Table 5-1 to determine how severe the potential impact may be and what level of management each type of risk will require.

Table 5-3 - provides the initial risk assessment for the site establishment of the SPO.

Table 5-1 - Likelihood Criteria and Risk Matrix

Probability	One off event *How likely?*	Frequency	Repeated *How often?*	Likelihood		Consequence					
						Insignificant	Minor	Moderate	Major	Severe	Catastrophic/ Transformational
						C6	C5	C4	C3	C2	C1
	Expected to occur frequently during time of activity or project. Greater than a 90% chance of occurring.		10 times or more every year	**Almost certain**	L1	8	19	27	29	34	36
	Expected to occur occasionally during time of activity or project. A 75-90% chance of occurring.		1-10 times every year	**Very Likely**	L2	7	18	21	28	31	35
	More likely to occur than not occur during time of activity or project A 50-75% chance of occurring.		Once each year	**Likely**	L3	6	11	20	23	30	33
	More likely not to occur than occur during time of activity or project. A 25-50% chance of occurring.		Once every 1 to 10 years	**Possible**	L4	4	10	13	22	25	32
	Not expected to occur during the time of activity or project. A 5-25% chance of occurring.		Once every 10 to 100 years	**Very Unlikely**	L5	3	9	12	15	24	26
	Not expected to ever occur during time of activity or project. Less than 5% chance of occurring.		Less than once every 100 years	**Rare**	L6	1	2	5	14	16	17

Table 5-2 - Consequence criteria

	CONSEQUENCES					
	Insignificant	Minor	Moderate	Major	Severe	Catastrophic
	C6	C5	C4	C3	C2	C1
Environment	No appreciable changes to environment and/or highly localised event.	Change from normal conditions within environmental regulatory limits and environmental effects are within site boundaries.	Short-term and/or well-contained environmental effects. Minor remedial actions probably required.	Impacts external ecosystem and considerable remediation is required.	Long-term environmental impairment in neighbouring or valued ecosystems. Extensive remediation required.	Irreversible large-scale environmental impact with loss of valued ecosystems.
Regulatory or Legal Breach	Low-level non-compliance with legal and/or regulatory requirement or duty by individuals or TfNSW.	Minor non-compliance with legal and/or regulatory requirement or duty. Investigation and/or report to authority.	Moderate non-compliance. Subject to comment and monitoring from applicable regulator. Small fine and no disruption to services.	Systemic non-compliance/Major breach resulting in enforcement action and/or prohibition notices. Substantial fine and no disruption to services.	Substantial breach resulting in prosecution, fines and/or litigation. Licence or accreditation restricted or conditional affecting ability to operate.	Prosecution leading to imprisonment of TfNSW executive. Loss of operating licence.
Customer Experience and Satisfaction	Infrequent or unrelated written complaints.	A stream of written complaints for more than 3 months.	A stream of written complaints for more than a year.	A substantial and sustained uplift in the rate of complaints.	A deluge of complaints for up to 6 months with normal background rates increasing by a factor of 3 or more.	A prolonged deluge of complaints for more than 6 months, with some normal background rates increasing by a factor of 10 or more.

Table 5-3 - Initial Risk Assessment

Aspect	Potential Environmental Impact	Initial Risk Score			Safeguards/controls	Residual Risk Score			Relevant MCoA Reference	Relevant REMM Reference
		Consequence	Likelihood	Risk	How can the risk be minimised?	Consequence	Likelihood	Risk		
Air quality	Dust leaving site impacts surrounding sensitive receivers including St Marys Station and industrial premises in Harris Street	C4	L4	13	Induction and training to include requirements for dust management. Visual monitoring of dust during high-risk periods (dry windy weather) Reasonably practicable measures to supress the emission of dust to be undertaken if dust is observed leaving site.	C5	L5	9	E1	-

Aspect	Potential Environmental Impact	Initial Risk Score			Safeguards/controls How can the risk be minimised?	Residual Risk Score			Relevant MCoA Reference	Relevant REMM Reference
		Consequence	Likelihood	Risk		Consequence	Likelihood	Risk		
Biodiversity and Trees	Removal of trees along Harris Street or within the site	C4	L5	12	Environmental work procedure to identify potential impacts to trees. If tree removal or lopping is required, submit Vegetation Removal Hold Point Impacts to the Structural Root Zone of retained trees must be assessed by a Level 5 Arborist to review the risk to the tree. Any trees removed will be replaced at a ratio of 2:1 by Sydney Metro	C4	L6	5	E13	-

Aspect	Potential Environmental Impact	Initial Risk Score			Safeguards/controls	Residual Risk Score			Relevant MCoA Reference	Relevant REMM Reference
		Consequence	Likelihood	Risk	How can the risk be minimised?	Consequence	Likelihood	Risk		
Flooding	Localised flooding during heavy rainfall event	C5	L4	10	Monitor Bureau of Meteorology forecast for heavy rainfall events in order to allow sufficient time to vacate and prepare the site prior to the commencement of heavy rainfall and flood events. Review of site layout and staging of construction works to avoid or minimise obstruction stormwater paths, pits and drains.	C6	L5	3	E15	HYD1
Aboriginal Heritage	Previously unidentified Aboriginal objects or places of cultural significance are discovered	C3	L5	15	All work must immediately stop in the vicinity of the affected area. Works potentially affecting the previously unidentified objects or places must not recommence until Heritage NSW has been informed. Induction and training to include requirements for unexpected finds.	C3	L6	14	E36	NAH9

Aspect	Potential Environmental Impact	Initial Risk Score			Safeguards/controls How can the risk be minimised?	Residual Risk Score			Relevant MCoA Reference	Relevant REMM Reference
		Consequence	Likelihood	Risk		Consequence	Likelihood	Risk		
Non-Aboriginal Heritage	Indirect visual impacts to the state listed St Marys Railway Station	C4	L3	20	The building will incorporate architectural treatment and finishes within key elements of temporary structures that reflect the context within which the construction sites.	C6	L3	11	E62	-
Noise and Vibration	Industrial premises on Harris Street highly noise affected during delivery and installation of prefabricated elements. Out of hours works exceed NML at residential receivers south of the site delivery and installation of prefabricated elements.	C5	L3	23	Detailed Noise and Vibration Impact Statement (DNVIS) to be prepared by suitability qualified acoustic consultant. Additional mitigation measures to be determined in accordance with the ICNG. Consultation with affected sensitive and non-sensitive receivers about respite periods. OOHW to be planned and approved in accordance with the SM-WSA OOHW Protocol.	C5	L4	10	E42, E47, E48	-

Aspect	Potential Environmental Impact	Initial Risk Score			Safeguards/controls How can the risk be minimised?	Residual Risk Score			Relevant MCoA Reference	Relevant REMM Reference
		Consequence	Likelihood	Risk		Consequence	Likelihood	Risk		
Place, Design and Visual Amenity	Impacts to visual amenity of Harris Street and from St Marys Station	C4	L3	20	The building will incorporate architectural treatment and finishes within key elements of temporary structures that reflect the context within which the construction sites. Design Review Panel will review the architectural treatment and finishes.	C6	L3	11	E62	LV3
Land use and property	Change in land use from existing commuter car park resulting in loss of parking spaces	C4	L1	27	TfNSW have completed construction of a new multi storey commuter car park at St Marys Station that will result in a net increase of approximately 100 car parking spaces. Dedicated parking spaces will be provided for personal working at the SPO. Use of public transport will be encouraged.	C6	L4	4	E109	

Aspect	Potential Environmental Impact	Initial Risk Score			Safeguards/controls	Residual Risk Score			Relevant MCoA	Relevant REMM
		Consequence	Likelihood	Risk	How can the risk be minimised?	Consequence	Likelihood	Risk	Reference	Reference
Contaminated land	Disturbance of contaminated soils for piling or building footings. Generation of contaminated waste. Illegal disposal of waste Refer Appendix G for contaminated soil and unexpected finds procedure	C4	L3	20	All wastes, including contaminated wastes will be identified and classified with the NSW EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes. Disposal of contaminated waste will be completed in accordance with the POEO Act, Protection of the Environment Operations (Waste) Regulation 2014.	C4	L4	13	E125	SC5

Aspect	Potential Environmental Impact	Initial Risk Score			Safeguards/controls	Residual Risk Score			Relevant MCoA	Relevant REMM
		Consequence	Likelihood	Risk	How can the risk be minimised?	Consequence	Likelihood	Risk	Reference	Reference
Land Contamination	Spill and leaks to the environment causing contamination of land and / or water	C4	L3	20	Pre-acceptance check of equipment prior to commencing work. Plant and equipment to be free of leaks and operating to adequate standard in accordance with legislation and operator's manual. Daily Pre-start checks. Spill kits to be present on site. Personnel will be trained in the use of spill kits through the project induction and/or progressive toolboxes.	C4	L4	13		HR1
Sustainability	High levels of energy and water use from business-as-usual design and specification	C4	L2	21	Design and specification to adhere to 5 Star GreenStar requirements Sydney Metro has committed to Climate Active Carbon Neutral certification for WSA, which will include the IPO carbon emissions	C4	L5	12		

Aspect	Potential Environmental Impact	Initial Risk Score			Safeguards/controls How can the risk be minimised?	Residual Risk Score			Relevant MCoA Reference	Relevant REMM Reference
		Consequence	Likelihood	Risk		Consequence	Likelihood	Risk		
Traffic and Transport	Occupancy of Harris Street during the during delivery and installation of prefabricated elements resulting in disruption to commuter, local residents and local businesses, emergency services, public transport operators, and other relevant stakeholders	C3	L1	29	Traffic Management Plan to be prepared for any proposed road occupancy or traffic control. Road Occupancy License to be obtained for Notify any changes in traffic conditions on roads or paths to road users, emergency services, public transport operators, and other relevant stakeholders Notify local residents and local businesses about any new or changed construction activities which will affect access to their properties Notify any changes in traffic conditions on roads or paths to road users, emergency services, public transport operators, and other relevant stakeholders	C4	L3	20		

Aspect	Potential Environmental Impact	Initial Risk Score			Safeguards/controls	Residual Risk Score			Relevant MCoA	Relevant REMM
		Consequence	Likelihood	Risk	How can the risk be minimised?	Consequence	Likelihood	Risk	Reference	Reference
Traffic and Transport	Heavy vehicles damage Harris Street or other local roads	C4	L3	20	Road Dilapidation Report must include other road infrastructure such as signs, curbs, applicable driveways, and pedestrian paths to be prepared prior to use heavy vehicles If damage to roads occurs as a result of the construction SPO, either compensate the Relevant Road Authority for the damage so caused; or rectify the damage.	C6	L4	13	E107, E108	
Waste and resource	Illegal disposal of building and construction waste	C4	L3	20	Off-site prefabrication reduces the generation of waste on-site All wastes, including contaminated wastes will be identified and classified with the NSW EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes.	C5	L5	10	E122, E125	

Aspect	Potential Environmental Impact	Initial Risk Score			Safeguards/controls How can the risk be minimised?	Residual Risk Score			Relevant MCoA Reference	Relevant REMM Reference
		Consequence	Likelihood	Risk		Consequence	Likelihood	Risk		
Water	Use of potable water during operation not minimised	C5	L2	18	Design to investigate water efficient fixtures and rainwater harvesting Should Built look to discharge water will comply with E130 however there is no intention to discharge water.	C6	L4	4		

5.2. Ongoing analysis of the key environmental risks

Built will be responsible for the ongoing analysis of the key environmental risks arising from the site establishment activities. Prior to the commencement of site embellishment work, Built will include prepare and implement activity specific environmental procedures. The procedures will include:

- A breakdown of the work tasks relevant to the specific activity and indicate responsibility for each task;
- Potential impacts associated with each task;
- A risk rating for each of the identified potential impacts;
- Mitigation measures relevant to each of the work tasks; and
- Responsibility to ensure the implementation of the mitigation measures.

The activity specific environmental procedures will be supplemented by progressive Environmental Control Maps (ECMs) (refer to Section 6.1). The environmental procedures and ECM will be reviewed by Sydney Metro and the ER.

6. Environmental Control Measures

6.1. Environmental Control Maps

Built will prepare and implement site based, progressive Environmental Control Maps (ECMs) which as a minimum:

- Depicting the current representation of the site; Refer Figure 6-1 and Figure 6-2 for laydown/storage area
- Indicate which environmental procedures, environmental approvals, or licences are applicable;
- Illustrate the site, showing significant structures, work areas and boundaries;
- Illustrate the environmental control measures and environmentally sensitive receivers;
- Is endorsed by Built's Environmental Manager or delegate;
- Include all the training and competency requirements for relevant workers; and.
- Be communicated to relevant workers, including sign off the appropriate procedures prior to commencing works on the specific site and / or activity.

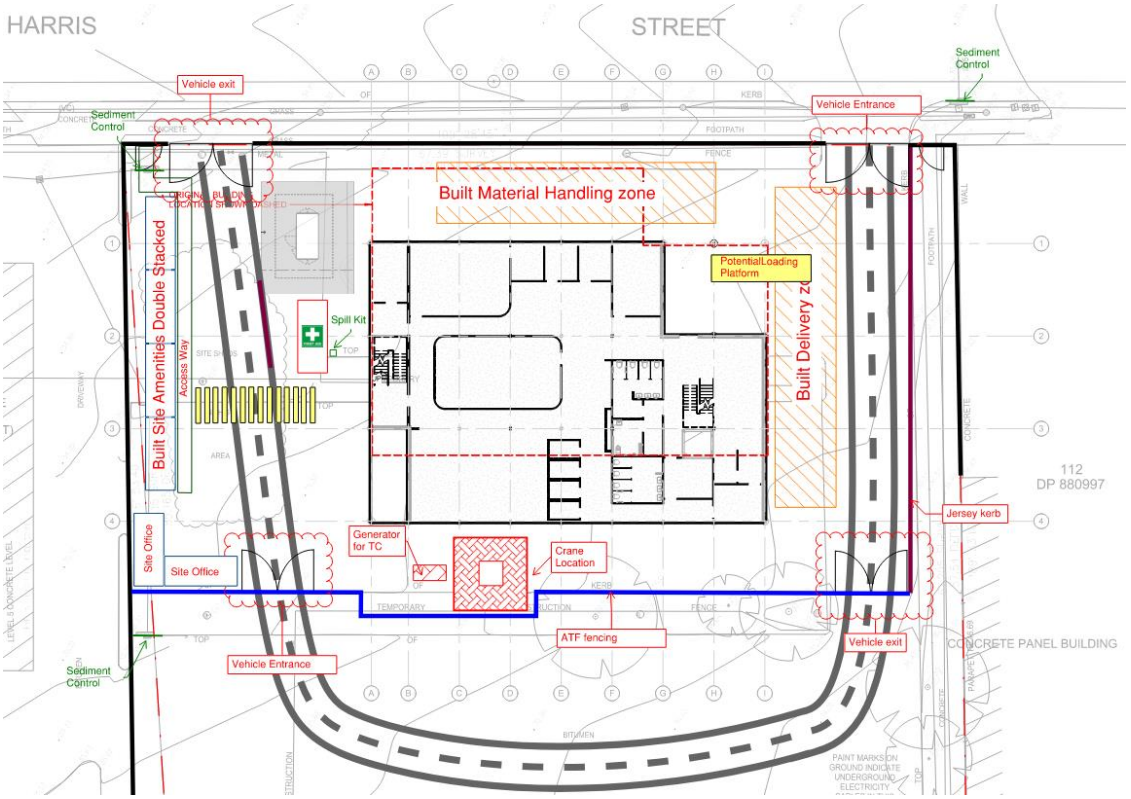

Figure 6-1 - Laydown Area

Figure 6-2 - Storage Laydown Area

6.2. Out of hours works

In accordance with CoA E42, Sydney Metro have prepared an Out of Hours Works Protocol (the OOHW Protocol) for SM-WSA to identify a process for the consideration, management and approval of work (not subject to an EPL) that is outside the approved working hours outlined in Section 3.5. The OOHW Protocol has been approved by the Secretary.

The OOHW Protocol provides a OOHW Approval Process as outlined in Figure 6-3. This includes a requirement to prepare an application that covers the assessment of noise and vibration impacts, mitigation measures (including community notification requirements) and review and approval for all proposed OOH work. The application must using a form consistent with Out-of-hours Work application form.

In accordance with CoA E42, all OOH work for the SPO requires approval by either the ER, or in the case of 'high risk' works approval by the Secretary.

6.2.1. Detailed Noise and Vibration Impact Statements (DNVIS)

The site establishment works for the SPO is expected to result in industrial receivers in Harris Street being highly noise affected during the approved working hours. Out of hours works may exceed the NMLs at residential receivers to the south of the site and commercial receivers in the adjacent carpark during the delivery and installation of the SPO buildings. As such, for works that trigger the requirements of CoA E47, a Detailed Noise and Vibration Impact Statements (DNVIS) must be prepared in accordance with the condition requirements. Works that trigger this requirement cannot commence until the DNVIS has been endorsed by the ER.

Built must engage a suitably qualified acoustic consultant to prepare the DNVIS based on the site-specific construction methodology. In accordance with CoA E57, the DNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the works. Consultation with the community to be undertaken by Sydney metro as required.

A copy of the DNVIS must be provided to the ER before the commencement of the associated works. The Planning Secretary and the EPA may request a copy(ies) of the DNVIS.

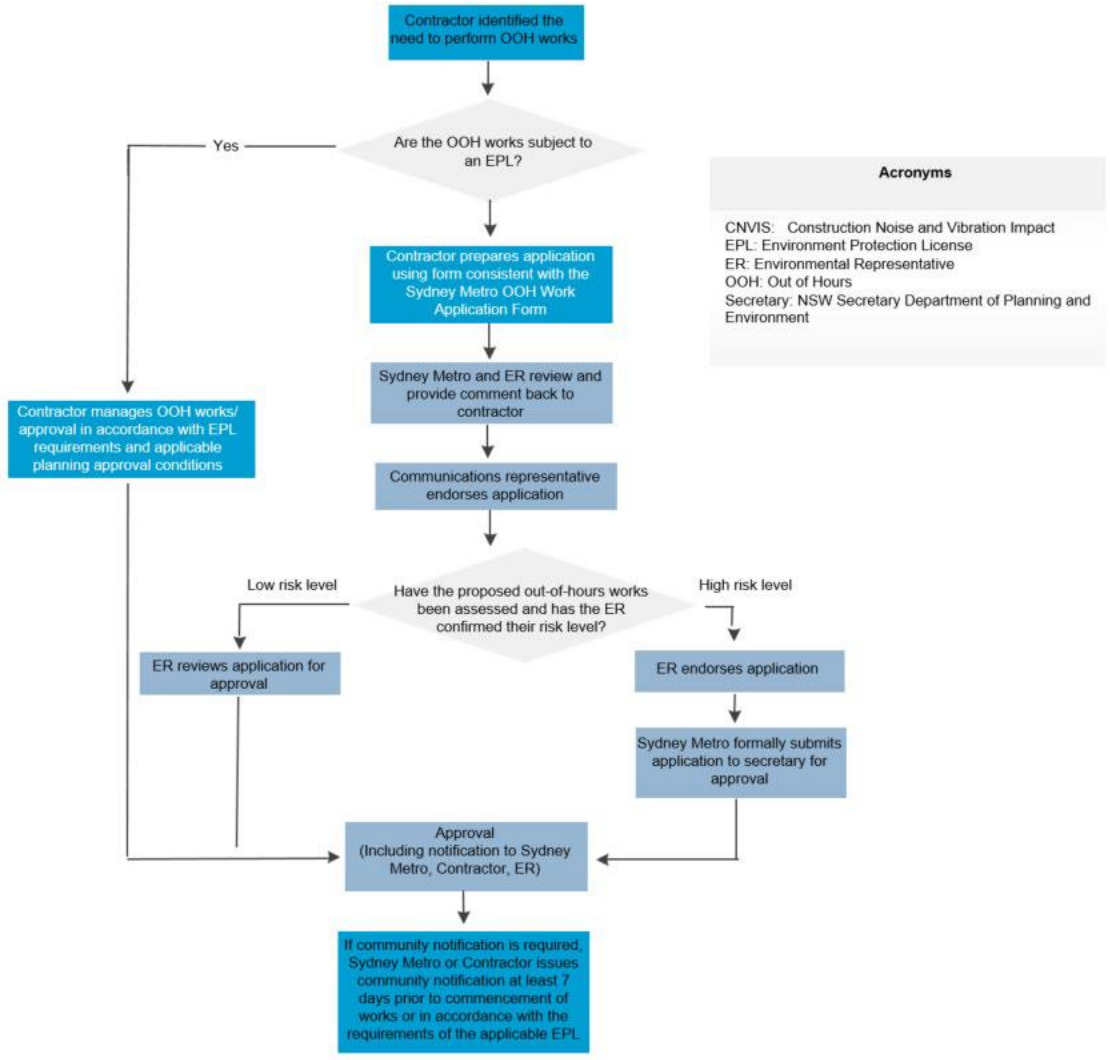

Figure 6-3 - OOH Work Approval Process

6.3. Road Dilapidation Report

Prior to the commencement of use of Harris Street by heavy vehicles, Built must prepare a Road Dilapidation Report. The Road Dilapidation Report must include other road infrastructure such as signs, curbs, applicable driveways and pedestrian paths.

The Road Dilapidation Report must be submitted to Sydney Metro in accordance with the Hold Point schedule in Section 7.7. From here Sydney Metro will submit the dilapidation report to other authorities including Penrith City Council.

6.4. Management Measures

Performance outcomes, commitments and management measures were identified in the CoAs, REMMs, CEMF and relevant guiding documents. All specific practicable measures and requirements to avoid and/or minimise impacts during site establishment of the construction ancillary facility compounds are outlined in Table 6-1.

Table 6-1 - Site establishment management and mitigation measures

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
	Traffic and Transport				
SE 1	Prepare a Road Dilapidation Report. The Road Dilapidation Report must include other road infrastructure such as signs, curbs, applicable driveways and pedestrian paths.	Prior to site establishment	Submit the Road Dilapidation Report to Sydney Metro as a hold point prior to use of Harris Street or other local road by heavy vehicles. Sydney Metro will be responsible for submitting the Road Dilapidation Report to other authorities (including Penrith City Council).	Built	E107
SE 2	If damage to roads occurs to Harris Street or other local roads as a result of the construction SPO, either compensate the Relevant Road Authority for the damage so caused; or rectify the damage.	Post site establishment	Notify the local road authority of damage and agree on compensation or rectify the damage to restore the road to at least the condition it was in pre-work as identified in the Road Dilapidation Report	Built	E108

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
SE 3	Prepare a construction traffic management plan and obtain approval in accordance with the SM-WSA Construction Traffic Management Framework prior to proceeding with any construction traffic movements.	Prior to site establishment	Submit traffic management plan to relevant road authority.	Built	SM-WSA Construction Traffic Management Framework
SE 4	Access to all utilities and properties must be maintained during works, unless otherwise agreed with the relevant utility owner, landowner or occupier. Any property access physically affected by the CSSI must be reinstated to at least an equivalent standard, unless otherwise agreed by the landowner or	At least five days prior to any proposed traffic changes	Community consultation in accordance with the OCCS	Built	E110, E111, E112

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
	occupier. Property access must be reinstated within one (1) month of the work that physically affected the access is completed or in any other timeframe agreed with the landowner or occupier.				
SE 5	Notify local residents and local businesses about any new or changed construction activities which will affect access to their properties	At least five days prior to any proposed traffic changes	Community consultation in accordance with the OCCS	Built	SM-WSA Construction Traffic Management Framework
SE 6	Notify any changes in traffic conditions on roads or paths to road users, emergency services, public transport operators, and other relevant stakeholders	At least five days prior to any proposed traffic changes	Community consultation in accordance with the OCCS	Built / Sydney Metro	SM-WSA Construction Traffic Management Framework

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
	Noise and vibration				
SE 7	Prepare a Detailed Noise and Vibration Impact Statement (DNVIS) to assess the highly noise affected receivers during the approved working hours and out of hours works may exceed the NMLs at residential receivers. The DNVIS should be prepared with reference to the Sydney Metro Construction Noise and Vibration Standard.	Prior to the commencement of site establishment works	Engage a suitability qualified acoustic consultant to model the site establishment activities. A copy of the DNVIS must be provided to the ER before the commencement of the associated works.	Built	E47 CNVS
SE 8	Standard mitigation measures in Table 11 of the CNVS shall be applied by default where feasible and reasonable in order to minimise the potential noise and vibration impacts.	During noisy works	Site inductions	Built	CNVS

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
SE 9	Additional mitigation measures to be determined in accordance with the ICNG.	Prior to the commencement of site establishment works	The DNVIS is to identify the additional mitigation measures for each impacted receiver in accordance with the CNVS.	Built	CNVS
SE 10	Consultation with affected sensitive and non-sensitive receivers about respite periods.	Prior to the commencement of site establishment works	Consult with highly noise affected receivers to determine preferences for respite period.	Built	CEMF
SE 11	OOHW to be planned and approved in accordance with the SM-WSA OOHW Protocol.	Prior to the commencement of OOH works	OOHW Permit under the OOHW Protocol	Built	E42
SE 12	On becoming aware of the need for emergency, the ER, the Planning Secretary and the EPA must be notified of the reasons for such work. The Proponent must use best endeavours to notify as soon as	In response to emergency OOH works	Notify Sydney Metro and affected sensitive land user(s) as soon as practicable. Sydney Metro will notify ER, the Planning Secretary and the EPA.	Built Sydney Metro	E41

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
	practicable all noise and/or vibration affected sensitive land user(s) of the likely impact and duration of those work.				
SE 13	In accordance with CoA E42 and with the exception of OOH work that is subject to an EPL, all OOH work subject to the planning approval requires approval by either the ER, or in the case of 'high risk' works approval by the Secretary.	Prior to site establishment	Submit the Out-of-hours Work application form with supporting information including DNVIS and evidence of consultation to Sydney Metro and ER for approval or the Secretary in the case of 'high risk' works.	Built	E42
SE 14	Minimise community noise disturbance, including avoiding swearing or unnecessary shouting, or loud stereos / radios, dropping of materials from height, throwing of	During site establishment works	Induction and training all site personnel in noise minimisation requirements	Built	CNVS

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
	metal items and slamming of doors.				
SE 15	Monitoring will be carried out at the start of high noise and vibration activities to confirm that actual noise and vibration levels are consistent with the noise and vibration impact predictions.	During site establishment works	The DNVIS to identify the nominated noise monitoring locations and timing	€Built	A18 (e) CNVS
	Soil and contamination				
SE 16	Waste must only be exported to a site licensed by the EPA for the storage, treatment, processing, reprocessing or disposal of the subject waste, or in accordance with a Resource Recovery Exemption or Order issued under the Protection of the	During site establishment works	Waste classification and analysis in accordance with the NEW EPA Guidelines or Resource Recovery Exemptions / Orders. Due diligence check or proposed licenced facilities.	Built	E124

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
	Environment Operations (Waste) Regulation 2014, or to any other place that can lawfully accept such waste.				
SE 17	Any spoil generated by the activity, including contaminated wastes will be identified and classified with the NSW EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes.	During site establishment works	Engage and contaminated land specialist to completed sampling in accordance with the NSW EPA's Waste Classification Guidelines	Built	E125
SE 18	Disposal of contaminated waste will be completed in accordance with the POEO Act, Protection of the Environment	During site establishment works	Complete due diligence check of proposed waste disposal facility / premises.	Built	E124

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
	Operations (Waste) Regulation 2014.				
SE 19	For licensed facilities, obtain review and retaining copy of facilities EPL. Provide facility with copy of waste classification and analysis report. Maintain appropriate records and disposal dockets retained for audit purposes.	Prior to disposal to licensed facility	Review the EPL of the facility on the EPL Public Register. Request a unique consignment number for any special, hazardous or restricted waste.	Built	E124
SE 20	For non-licensed disposal facilities, exchange Section 143 Notice. Provide premises owner with copy of waste classification and analysis report with Section 143 Notice.	Prior to disposal to non-licensed premises	Review the waste classification and quantity against Protection of the Environment Operations (Waste) Regulation 2014.	Built	E124

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
SE 21	Plant and equipment to be free of leaks and operating to adequate standard in accordance with legislation and operator's manual.	During site establishment works	Pre-acceptance check of equipment prior to commencing work. Daily Pre-start checks.	Built	CEMF
SE 22	Spill prevention and response will comply with: • Relevant legislation and Australian Standards • EPA "Bunding and Spill Management Guidelines" contained within EPA Environmental Protection Manual for	During site establishment works	Induction and training all site personnel	Built	CEMF

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
	Authorised Officers"				
SE 23	Clean up waste in the event of an accidental spill of fuel or chemicals.	During site establishment works	Spill kits to be present on site. Personnel will be trained in the use of spill kits through the project induction and/or progressive toolboxes.	Built	CEMF
	Street trees				
SE 24	Environmental work procedure to identify potential impacts to trees. If tree removal or lopping is required, submit Vegetation Removal Hold Point	During site establishment works	Vegetation Removal Hold Point.	Built	CEMF
SE 25	Impacts to the Structural Root Zone of retained trees must be assessed by a Level 5 Arborist to review the risk to the tree.	During site establishment works	Arboricultural Impact Assessment to be prepared for retained trees.	Built	LV1

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
SE 26	Existing trees to be retained would be protected prior to the commencement of construction in the vicinity of these trees in accordance with AS4970-2009 Protection of Trees on Development Sites	During site establishment works	Arboricultural Impact Assessment to be prepared for retained trees.	Built	LV2
SE 27	Built to complete a tree survey report of any trees proposed to be removed prior to removal to inform the project Tree Survey.	During site establishment works	Built must obtain approval from prior to clearing any trees.	Built	E13
SE 28	Any trees removed must be replaced at a ratio of 2:1 by Sydney metro	During site establishment works	Contractor must complete a Tree survey report to be submitted to Sydney Metro as well as provide tree clearing information. Both SM and contractor to maintain tree register.	Built	E13

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
	Heritage				
SE 29	All work must immediately stop in the vicinity of an unexpected heritage find. Works potentially affecting the previously unidentified objects or places must not recommence until Heritage NSW has been informed.	During site establishment works	Induction and training to include requirements for unexpected finds.	Built	E33
	Sustainability, Climate change and GHG				
SE 30	Design, specification and construction to adhere to 5 Star Green Star requirements.	Detailed design, fabrication and fit out	Requirements management and design review (refer to Appendix E for a draft pathway)	Built	Contractual requirement
SE 31	Greenhouse gas emissions to monitored to allow for offsets by Sydney Metro to achieve Climate Active Carbon Neutral certification.	Site establishment and operation	All Scope 1,2 and 3 emissions to be monitored and reported to Sydney Metro	Built	Sustainability Strategy
SE 32	Detailed design and specification to	Detailed design	Water efficient fixtures to be nominated in the specification	Built	Contractual requirement

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
	nominated water efficient fixtures				
SE 33	Detailed design to investigate rainwater harvesting.	Detailed design	To be provided as part of hydraulic design documentation	Built	CEMF
	Waste and Resource management				
SE 34	Off-site prefabrication reduce the generation of waste on-site	Pre-fabrication	To be included in contract with Built	Sydney Metro	Contractual requirement
SE 35	Waste streams would be segregated to avoid cross-contamination of materials and maximise reuse and recycling opportunities	Site establishment and operation	To be included in contract	Built SSTOM Contractor	WR2 Contractual requirement
SE 36	Waste must only be exported to a site licensed by the EPA for the storage, treatment, processing, reprocessing or disposal	Site establishment	Review the EPL of the facility on the EPL Public Register and only licenced disposal facilities will be engaged throughout the works.	Built	SC5

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
	of the subject waste, or in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, or to any other place that can lawfully accept such waste.				
SE 37	All wastes, including contaminated wastes will be identified and classified with the NSW EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes.	Site establishment	All wastes, including contaminated wastes will be identified and classified with the NSW EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes.	Built	SC5, E125
	Landscape and visual				

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
SE 38	The building will incorporate architectural treatment and finishes within key elements of temporary structures that reflect the context within which the construction sites.	Detailed design	The design of all temporary works will require Sydney Metro approval in relation to urban design and visual impacts and Sydney Metro	Built Sydney Metro	E62, LV3 CEMF
SE 39	The exterior of the SPO to include temporary landscaping and vegetative screening minimises visual impacts.	Detailed design	Requirements management and design review	Built	E61
SE 40	Outdoor lighting design to be consist with ASINZS 4282:2019 Control of the obtrusive effects of outdoor lighting, relevant Australian Standards in the series ASINZS 1158 - Lighting for Roads and Public Spaces	Detailed design	Requirements management and design review	Built	E64

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
SE 41	Visual and landscape measures will be incorporated into the regular inspections including checking the health of retained vegetation around site boundaries and checking the position and direction of any sight lighting	During site establishment works	Site inspections	Built	CEMF
SE 42	The site will be regularly inspected and kept clean. Graffiti will be removed or painted over promptly.	During site establishment works and facility operation	Site inspections	Built	CEMF
SE 43	The principles of Crime Prevention through Environmental Design (CPTED) will be applied to all works, including temporary works that have a public interface.	Detailed design	Site inspections	Built	CEMF

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
	Air quality				
SE 44	Visually monitor dust generation during the works. Identify and control potential dust and air pollutant sources Cease works that are generating dust leaving site. Take all reasonably practicable measures to minimise the emission of dust and other air pollutants during construction.	During site establishment works	Indication and training to include requirements for air quality Site inspections	Built	E1 CEMF
SE 45	Plant and equipment will be serviced and maintained in good working order to reduce unnecessary emissions from exhaust fumes	During site establishment works	Pre-start plant inspections Site inspections	Built	CEMF
SE 46	Plant and equipment to be switched off engines when not in use	During site establishment works	Site inspections	Built	CEMF
SE 47	Avoid the use of diesel- or petrol-powered generators and instead using mains electricity or battery powered	During site establishment works	Indication and training to include requirements for air quality	Built	CEMF

ID	Measure/Requirement	When to Implement	How to implement	Responsibility for Implementation	Reference
	equipment, where practicable.				
	Complaints Management				
SE 48	Deal with complaints in a responsive manner so that stakeholders' concerns are managed effectively and promptly.	During site establishment works	Complaints Management System in accordance with CoA B2	Built	B2 CEMF
SE 49	A verbal response will be provided to the complainant as soon as possible and within a maximum of two hours from the time of the complaint (unless the complainant requests otherwise). A detailed written response will then be provided, if required, to the complainant within one week.	During site establishment works	Complaints Management System in accordance with CoA B2	Built	B2 CEMF

7. Compliance management

7.1. Roles and responsibilities

Table 7-1 provides the key roles and responsibilities under this SEMP.

Table 7-1 - Key Roles and Responsibilities

Project Role	Responsibilities	Authority to Stop Works on environmental grounds
Construction Manager	The Built Construction Manager will be engaged full-time on the project to ensure that Built meets all Contract obligations. They will be Built's primary contact with the Principal's Representative on all aspects of the Project, including community consultation and stakeholder engagement. The Construction Director will interface: • with the Principal through monthly progress meetings, the Monthly Report, and ad hoc meetings as and when required; • With the Environmental Representative as and when required.	Yes
Project Manager	The Built Project Manager is responsible for site establishment and environmental issues at the workplace, including: • Implementing and maintaining this SEMP; • Undertake a detailed review of the project documentation and prepare a schedule of scope deliverables which forms the environmental management plan; • Identify key environmental management risks and opportunities to ensure high environmental management outputs; • Communicating with the principal contractor to reduce environmental management risks; • Ensure that all staff under their control have adequate training and experience for the for the work in conjunction with operations supervisor; • Ensure that all staff under their control has adequate equipment to carry out the works in conjunction with operations supervisor; • Periodic audits of their environmental control processes; • Leading by example and promoting sound environmental management practices at every opportunity;	Yes

Project Role	Responsibilities	Authority to Stop Works on environmental grounds
	• Reviewing environmental management reports and inspections, and following up on recommendations; and • Regular attendance at on-site meetings to ensure environmental management related issues are raised for review. The Project Manager will interface: • With the Principal through monthly progress meetings and ad hoc meetings as and when required; • With the Environmental Representative during ER site inspections and in addressing ER correspondence or enquiries.	
Environment and Sustainability Manager	The Built Environment and Sustainability Manager is responsible for environmental management at the workplace, including: • Conducting internal audits and inspections of the site and compliance with the CEMP and Sub Plans; • Participating in Principal-led site audits; • Assisting in the implementation of the SEMP; • Updating the management plans as required, and preparing Consistency Assessments in accordance with the Sydney Metro Planning Approval Consistency Assessment Procedure, as required; • Understanding the requirements of the contract; • Providing advice and assistance on environmental management matters to employees; • Ensuring that all environmental defects and incidents are identified, actioned and closed out; • Leading by example and promoting sound environmental management practices at every opportunity; • Attending on-site meetings to ensure environmental management related issues are raised for review; • Other environmental management related duties as directed by the Project Manager. • The Environment and Sustainability Manager have the authority to stop works/project should this be required due not meeting requirements under the SEMP. The Environment and Sustainability Manager will interface:	Yes

Project Role	Responsibilities	Authority to Stop Works on environmental grounds
	• With the Principal through attendance at collaborative site inspections and surveillance activities, Consistency Assessments, and ad hoc meetings; • With the relevant consultant when preparing Consistency Assessments and as and when required; • With the Environmental Representative during ER site inspections and in addressing ER correspondence or enquiries.	
Environmental Representative ER	In accordance with CoA E32, the appointed ER must: (a) receive and respond to communication from the Planning Secretary in relation to the environmental performance of the CSSI; (b) consider and inform the Planning Secretary on matters specified in the terms of this approval; (c) consider and recommend to the Proponent any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community; (d) review documents identified in Conditions A10, A18, A20, C1, C5 and C13 and any other documents that are identified by the Planning Secretary, to ensure they are consistent with requirements in or under this approval and if so: (i) endorse the documents before submission of such documents to the Planning Secretary (if those documents are required to be approved by the Planning Secretary); or (ii) endorse the documents before the implementation of such documents (if those documents are only required to be submitted to the Planning Secretary / Department for information or are not required to be submitted to the Planning Secretary / Department); (iii) provide a written statement to the Planning Secretary advising the documents have been endorsed.	No

Project Role	Responsibilities	Authority to Stop Works on environmental grounds
	(e) for documents that are required to be submitted to the Planning Secretary / Department for information under (d)(ii) above, the documents must be submitted as soon as practicable to the Planning Secretary / Department after endorsement by the ER, unless otherwise agreed by the Planning Secretary; (f) regularly monitor the implementation of the documents listed in Conditions A10, A18, A20, C1, C5 and C13 to ensure implementation is being carried out in accordance with the document and the terms of this approval; (g) 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 A36; (h) as may be requested by the Planning Secretary, assist the Department in the resolution of community complaints received directly by the Department; (i) consider or assess the impacts of minor ancillary facilities as required by Condition A22; and (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 terms 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 terms of this approval;	

Project Role	Responsibilities	Authority to Stop Works on environmental grounds
	(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; and (l) assess the impacts of activities as required by the Low Impact Work definition. With respect to (d) above, the ER is not required to endorse the specialist content in documents requiring specialist review and / or endorsement.	
Independent Certifier	If required, An Independent Certifier/Verifier's role is to work independently from the Built and the Sydney Metro teams, providing the Sydney Metro with confidence that contractual obligations are met, project risks are identified, and effective verification and monitoring systems are implemented.	No

7.2. Training

All personnel (including sub-contractors) are required to attend a compulsory site induction that includes an environmental component before commencement on-site. This is undertaken to ensure all personnel involved in the SM-WSA St Marys SPO works are aware of the requirements of the SEMP.

As a minimum this will include site induction, regular toolbox talks and topic specific environmental training as follows:

- The site induction will be provided to all site personnel and will include, as a minimum:
  - Training purpose, objectives and key issues;
  - Contractor'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;
  - Site specific issues and controls including those described in the environmental procedures;

    - Reporting procedure(s) for environmental hazards and incidents; and
    - Communication protocols for interactions with community and stakeholders.
- 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
- Topic specific environmental training should be based upon, but is not limited to, this SEMP.

Short-term visitors to site undertaking inspections/entering the site (such as regulators) will be required to undertake a visitor's induction and be accompanied by inducted personnel at all times.

A record of all environment inductions will be maintained in an induction and training register and kept on-site. The training register will identify who is trained, when trained, the trainer and what they were trained in.

7.3. Complaints Management

Sydney Metro have developed the SMW & SMWSA Construction Complaints Management System (sydneymetro.info) in accordance with CoA B2 that consists of:

- a 24- hour telephone number for the registration of complaints and enquiries about the CSSI - **1800 717 703**.
- sydneymetrowsa@transport.nsw.gov.au
- a postal address to which written complaints and enquires may be sent;
- an email address to which electronic complaints and enquiries may be transmitted; and
- a mediation system for complaints unable to be resolved
- a complaints register.

Community liaison and complaints handling will be undertaken in accordance with the Construction Complaints Management System develop by Sydney Metro. This will include:

- Built will deal with complaints in a responsive manner so that stakeholders' concerns are managed effectively and promptly; and
- A verbal response will be provided to the complainant as soon as possible and within a maximum of two hours from the time of the complaint (unless the complainant requests otherwise). A detailed written response will then be provided, if required, to the complainant within one week.
- Community liaison and complaints handling for construction of on-airport works will be undertaken in accordance with the Integrated Complaint Handling Procedure.

A Complaints Register must be maintained recording information on all complaints received about the CSSI during the carrying out of any work and for a minimum of 12 months following the completion of construction. The Complaints Register must record the:

- number of complaints received;
- date and time of the complaint;
- number of people (in the household) affected in relation to a complaint, if relevant;
- method by which the complaint was made;

- any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- issue of the complaint;
- means by which the complaint was addressed and whether resolution was reached, with or without mediation; and
- if no action was taken, the reason(s) why no action was taken.

The Complaints Register must be provided to the Planning Secretary upon request, within the timeframe stated in the request.

7.4. Monitoring and inspection

In accordance with CoA A18(e), environmental inspections will be undertaken for the duration of the SPO site establishment works to monitoring performance outcomes. The type and frequency of environmental inspections will be determined by Built during the development of construction program and reflect the minimum requirements detailed in Table 7-2.

Table 7-2 - Site Inspection Timetable

Inspection	Frequency	Responsibility
Surveillance by Site Foreman	Daily	Built
Daily / Shift Pre-start	Daily	Built
Site Inspection	Daily	Built
Environmental Inspection	Daily during delivery and installation of prefabricated elements Weekly at other times	Built
ER Inspection	At discretion of ER	Built

7.4.1. Construction noise monitoring

A program for construction noise monitoring will be developed based on the DNVIS (refer to Section 6.2.1. This will include:

- Attended monitoring will be carried out at the commencement of delivery and installation of prefabricated elements to confirm the actual noise
- Attended OOHW noise monitoring at sensitive receivers during evening, night or day OOH (weekends/ public holidays)
- Attended monitoring where a complaint is received and monitoring is considered an appropriate response to determine if noise levels exceed predicted 'worst case' construction noise levels documented.
- Noise monitoring at non-sensitive receivers (industrial premises in Harris Street) predicted to be highly noise affected in standard hours.

Monitoring to be undertaken and the nearest sensitive receiver to the activity. The attended noise monitoring data will be compared to the NMLs and predicted noise levels.

Observations will also be reported including audibility of construction noise, other noise in the environment and any discernible construction activities contributing to the noise at the receiver.

7.5. Auditing

7.5.1. Independent audits

Independent audits are not required for site establishment.

7.6. Reporting

Built uses a number of electronic processes for recording and monitoring of HSE and Environmental performance on all projects. Lucidity is an App and browser interface software program used for electronic form completion and filing. Rapid Incident Reporting is an online incident reporting tool used by Built to capture and document information relating to all HSE incident occurring on site, a side from those otherwise mentioned. SimpliSWMS maybe be used on projects for the management of SWMS created by Built, the Person Conducting a business or Undertaking (PCBU) and Subcontractor.

As per the contractual requirements Built will be issuing monthly progress reports on its HSE and Environmental performance on the project to Sydney Metro HS and Environment teams.

Sustainability reporting will be issued as monthly data reports in a format aligned with the SM-WSA Monthly Reporting Guidance document.

7.7. Hold Points

A Hold Point is a point beyond which a work process must not proceed without express written authorisation from Sydney Metro. Built is responsible for preparation and submission of documentation for the nominated Hold Points prior to the commencement of the relevant works.

Hold Points and Witness Points relevant to this Plan are outlined in Table 7-3

Table 7-3 - Hold Points

Hold Point	Release of Hold Point	Responsibility
Ground Disturbance	Environmental Control Maps	Built
Out of hours works	Detailed Noise and Vibration Impact Statement (DNVIS) Out-of-hours Work application form	Built
Use of local roads by heavy vehicles	Road Dilapidation Report	Built
Construction identified as affecting buildings	Building Condition Survey	Built
Tree removal	Tree Survey	Built

7.8. Non-conformances

A non-conformance is the failure or refusal to comply with the requirements of project system documentation including this SEMP and supporting documentation that does not result in a non-compliance. A non-conformance may result in an environmental non-compliance if there is a breach of an Environmental Requirement originating from Planning Approvals, Environment Protection Licenses, lease agreements, and other requirements documented in environmental management plans.

Non-conformances may be identified through environmental auditing (see Section 7.5), review of compliance (see Section 7.6) or incident management (see Section 8).

Any member of the Principal Contractor team may raise a non-conformance in accordance with the Sydney Metro Environmental Incident and Non-compliance Reporting Procedure (refer to Appendix F).

The ER, Sydney Metro Project Manager, Sydney Metro Environmental Manager or a representative of a public authority may also raise a non-conformance or improvement opportunity using the same process.

Non-conforming activities may be stopped, if necessary, by any member of the Principal Contractor team the following consultation with Built's Construction Manager or delegate. The ER may also stop works in circumstances, in which case a non-conformance report will be prepared by the Principal Contractor. The works will not recommence until corrective/ preventative actions have been closed out.

7.8.1. Non-Compliance Notification

The Planning Secretary must be notified in writing via the Major Projects website within seven (7) days after Built becomes aware of any non-compliance with the terms of this approval.

A non-compliance notification must identify the CSSI (including the application number for it), set out the condition of approval that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be undertaken to address the non-compliance. the Proponent becomes aware of any non-compliance with the terms of this approval.

A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

8. Environmental Incident and Emergency Response

Environmental incidents and non-compliance will be defined, classified and reported in accordance with the Sydney Metro Environmental Incident and Non-compliance Reporting Procedure (refer to Appendix F).

Incidents that causes or threatens to cause material harm and which may or may not be or cause a non-compliance with the terms of this approval will be notified verbally immediately to Sydney Metro and the ER.

In accordance with CoA A41, incident reports will be provided to Sydney Metro and ER. Sydney Metro will provide written notification to the Planning Secretary via the Major Projects website as soon as possible and no later than 24 hours after Built become aware of the incident.

A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

CoA A45 also requires additional written notification within seven days and a detailed report within 30 days of the incident occurring. Sydney Metro and Built will undertake an investigation and implement corrective action to minimise the impact of the incident where possible.

9. Review and improvement

9.1. Continuous improvement

Continuous improvement of this Plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement. The continuous improvement process will be designed to:

- Identify areas of opportunity 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

Built will be responsible for ensuring Project environmental risks are identified and included in the risk register and appropriate mitigation measures implemented throughout the Project as part of the continuous improvement process.

9.2. SEMP update and amendment

The processes described in Section 7 of this Plan may result in the need to update or revise this SEMP. This will occur as needed.

Minor amendments to be made to the SEMP that do not increase impacts to nearby sensitive land use(s), and are consistent with the terms of this approval SEMP approved by the Planning Secretary may be approved by the ER. Proposed amendment that are not determined by the ER to be minor must be submitted to the Planning Secretary for approval.

A copy of the updated SEMP and changes will be distributed to all relevant stakeholders.

Appendix A CoA and REMMS

Table A-1 - CoA and REMMS relevant to this SEMP

Condition no.	Condition	Reference within this SEMP
A1	The Proponent must carry out the CSSI in accordance with the terms of this approval and generally in accordance with the: (a) Sydney Metro – Western Sydney Airport Environmental Impact Statement dated 21 October 2020; and (b) Sydney Metro – Western Sydney Airport Submissions Report submitted April 202	Note
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.	Note
A3	In the event of an inconsistency between: (a) the conditions of this approval and any document listed in Condition A1 , the conditions of this approval will prevail to the extent of the inconsistency; and (b) any document listed in Condition A1, the most recent document will prevail to the extent of the inconsistency. Note: For the purpose of this condition, there is an inconsistency between a term of this approval and any document if it is not possible to comply with both the term and the document.	Note
A4	In the event that there are differing interpretations of the conditions of this approval, including in relation to a condition of this approval, the Planning Secretary's interpretation is final	Note
A5	The Proponent must comply with all written requirements or directions of the Planning Secretary, including in relation to:	Note

Condition no.	Condition	Reference within this SEMP
	(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 terms of this approval; (d) any audit of the construction or operation of the CSSI; (e) the terms of this approval and compliance with the terms of this approval (including anything required to be done under this approval); (f) the carrying out of any additional monitoring or mitigation measures; and (g) in respect of ongoing monitoring and management obligations, compliance with an updated or revised version of a guideline, protocol, Australian Standard or policy required to be complied with under the terms of this approval.	
A6	Where the terms of this approval require a document or monitoring program to be prepared, or a review to be undertaken, in consultation with identified parties, evidence of the consultation undertaken must be submitted to the Planning Secretary with the document. The evidence must include: (a) documentation of the engagement with the party identified in the condition of approval that has occurred before submitting the document for approval; (b) a log of the dates of engagement or attempted engagement with the identified party and a summary of the issues raised by them; (c) documentation of the follow-up with the identified party(s) where feedback has not been provided to confirm that the party(s) has none or has failed to provide feedback after	Section 1.6.2

Condition no.	Condition	Reference within this SEMP
	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	
A7	This approval lapses five (5) years after the date on which it is granted, unless work has physically commenced on or before that date	Note (Not Triggered)
A8	References in the terms of this approval to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, standards or policies in the form they are in as at the date of this approval.	Note
A9	Any document that must be submitted or action taken within a timeframe specified in or under the conditions of this approval may be submitted or undertaken within a later timeframe agreed with the Planning Secretary. This condition does not apply to the written notification required in respect of an incident under Condition A41.	Note
A12	The CSSI must be staged in accordance with the Staging Report, as submitted to the Planning Secretary for information	Note
A13	Where staging is proposed, the terms of this approval that apply or are relevant to the work or activities to be carried out in a specific stage must be complied with at the relevant time for that stage.	Note
A14	Where changes are proposed to the staging of construction or operation, a revised Staging Report must be prepared and submitted to the Planning Secretary for information before the commencement of changes to the stage of construction or the stage of operation	Note (Not Triggered)
A15	Where changes are proposed to the risk assessment related to the staging of construction or operation, a revised Staging Report must be submitted to the Planning Secretary for information one (1) month before the lodgement of any CEMP or CEMP sub plan associated with the stage where change in risk assessment is proposed.	Note (Not Triggered)

Condition no.	Condition	Reference within this SEMP
A16	The Proponent may submit any strategies, plans or programs required by this approval on a progressive basis, within each stage of the CSSI. Notes: (a) While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to 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 this activity to any future activities within the stage, and the trigger for updating the strategy, plan or program. 3. The staged submission of strategies, plans or programs may reflect the construction and operation of the project through geographical activities, temporal activities or activity-based staging	Note (Not Triggered)
A17	Ancillary facilities that are not identified by description and location in the documents listed in Condition A1 can only be established and used in each case if: (a) they are located within or immediately adjacent to the Construction Boundary of the CSSI; and (b) they are not located next to sensitive land use(s) (including where an access road is between the facility and the receiver), unless the landowner and occupier have given written acceptance to the carrying out of the relevant facility in the proposed location; and I they have no impacts on Heritage items (including areas of archaeological sensitivity), threatened species, populations or ecological communities beyond the impacts approved under the terms of this approval; and	Non applicable. The SPO was identified as an ancillary facility in the documents listed in Condition A1.

Condition no.	Condition	Reference within this SEMP
	(d) the establishment and use of the facility can be carried out and managed within the outcomes set out in the terms of this approval, including in relation to environmental, social and economic impacts. Note: This condition does not apply to any ancillary facilities or work that are exempt or complying development, established before the commencement of construction under this approval or minor ancillary facilities established under Condition A22.	
A18	Before establishment of any ancillary facility (excluding exempt or complying development, minor ancillary facilities determined by the ER to have minimal environmental impact and those established under Condition A22 and those considered in an approved CEMP), the Proponent must prepare a Site Establishment Management Plan which outlines the environmental management practices and procedures to be implemented for the establishment of the ancillary facilities. The Site Establishment Management Plan must be prepared in consultation with the Relevant Council(s) and relevant government agencies. The Site Establishment Management Plan must include:	This plan. Section 1.6.1
	(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);	Section 3.2
	(b) figures illustrating the proposed operational site layout and the location of the closest sensitive land use(s);	Section 3.3
	(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 before the commencement of site establishment work;	Section 5
	(d) details of how the site establishment activities described in subsection (a) of this condition will be carried out to:	Section 3.2
	(i) meet the performance outcomes stated in the documents listed in Condition A1; and	Section 1.5
	(ii) manage the risks identified in the risk analysis undertaken in subsectil(c) of this condition; and	Section 6

Condition no.	Condition	Reference within this SEMP
	(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 Proponent from preparing individual Site Establishment Management Plans for each ancillary facility.	Section 7.4
A19	With the exception of a Site Establishment Management Plan expressly nominated by the Planning Secretary to be endorsed by the ER, all Site Establishment Management Plans must be submitted to the Planning Secretary for approval one (1) month before the establishment of any ancillary facilities.	Section 1.7
A20	A Site Establishment Management Plan expressly nominated by the Planning Secretary to be endorsed by the ER must be submitted to the ER for endorsement one (1) month before the establishment of that ancillary facility or as otherwise agreed with the ER.	Section 1.7
A21	The use of ancillary facility for construction must not commence 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 applicable). Note: This condition does not apply to Condition A22 or where the use of an ancillary facility is Low Impact Work or for Low Impact Work.	Section 1.7
A22	Lunch sheds, office sheds, portable toilet facilities and the like, can be established and used where they have been assessed in the documents listed in Condition A1 or satisfy the following criteria: (a) are located within or adjacent to the Construction Boundary; and (b) have been assessed by the ER to–have - (i) minimal amenity impacts to surrounding residences and businesses, after consideration	Section 3.3, Appendix B

Condition no.	Condition	Reference within this SEMP
	of matters such as compliance with the ICNG, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and (ii) minimal environmental impact with respect to waste management and flooding, and (iii) no impacts on biodiversity, soil and water, and Heritage items beyond those already approved under other terms of this approval.	
A23	Boundary screening must be erected around ancillary facilities that are adjacent to sensitive land use(s) for the duration that the ancillary facility is in use unless otherwise agreed with relevant affected residents, business operators or landowners.	Section 4.9
A24	Boundary screening required under Condition A23 must minimise visual impacts on adjacent sensitive land use(s).	Section 4.9
A25	All Independent Appointments required by the terms of this approval must have regard to the Department's guideline Seeking approval from the Department for the appointment of independent experts (DPIE, 2020) and hold current membership of a relevant professional body, unless otherwise agreed by the Planning Secretary	Note (Not Triggered)
A26	The Planning Secretary may at any time commission an audit of how an Independent Appointment has exercised their functions. The Proponent must: (a) facilitate and assist the Planning Secretary in any such audit; and (b) make it a term of their engagement of an Independent Appointment that the Independent Appointment facilitate and assist the Planning Secretary in any such audit	Note (Not Triggered)
A27	Upon completion of an audit under Conditions A26 above, the Planning Secretary may withdraw its approval of an Independent Appointment should they consider the Independent Appointment has not exercised their functions in accordance with this approval. Note: Conditions A26 and A27 apply to all Independent Appointments including the ER and Independent Auditor.	Note

Condition no.	Condition	Reference within this SEMP
A28	Work must not commence until an Environmental Representative (ER) has been nominated by the Proponent and approved by the Planning Secretary	Note, however Section 1.7 identified approval process
A29	The proposed ER must be a suitably qualified and experienced person(s) who was not involved in the preparation of the documents listed in Condition A1 and is independent from the design and construction personnel for the CSSI and those involved in the delivery of it.	Note
A30	The Proponent may engage more than one ER for the CSSI, in which case the functions to be exercised by an ER under the terms of this approval may be carried out by any ER that is approved by the Planning Secretary for the purposes of the SSI	Note
A31	The ER must meet the requirements of the Department's Environmental Representative Protocol (DPE, 2018).	Note
A32 (f)	For the duration of the work until the commencement of operation, or as agreed with the Planning Secretary, the approved ER must: (f) regularly monitor the implementation of the documents listed in Conditions A10, A18, A20, C1, C5 and C13 to ensure implementation is being carried out in accordance with the document and the terms of this approval;	Section 7.4
A32 (d)	For the duration of the work until the commencement of operation, or as agreed with the Planning Secretary, the approved ER must: (d) review documents identified in Conditions A10, A18, A20, C1, C5 and C13 and any other documents that are identified by the Planning Secretary, to ensure they are consistent with requirements in or under this approval and if so: (i) endorse the documents before submission of such documents to the Planning Secretary (if those documents are required to be approved by the Planning Secretary); or (ii) endorse the documents before the implementation of such documents (if those documents are only required to be submitted to the Planning Secretary / Department for information or are not required to be submitted to the Planning Secretary / Department);	Section 1.7

Condition no.	Condition	Reference within this SEMP
	(iii) provide a written statement to the Planning Secretary advising the documents have been endorsed.	
A32 (j)	For the duration of the work until the commencement of operation, or as agreed with the Planning Secretary, the approved ER must: (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 terms 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 terms of this approval;	Section 9.2
A33	The Proponent must provide the ER with all documentation requested by the ER in order for the ER to perform their functions specified in Condition A32 (including preparation of the ER monthly report), as well as: (a) the Complaints Register (to be provided on a weekly basis or as requested); and (b) a copy of any assessment carried out by the Proponent of whether proposed work is consistent with the approval (which must be provided to the ER before the commencement of the subject work).	Section 7.3
A34	The Department, and relevant Councils must be notified in writing of the date of commencement of construction at least seven (7) days before the commencement of construction.	Section 7.7
A35	If construction of the CSSI is to be staged, the Department, Liverpool City Council and Penrith City Council must be notified in writing at least seven (7) days before the commencement of each stage, of the date of the commencement of that stage.	Note (Not Triggered)
A36	Independent Audits of the CSSI must be conducted and carried out in accordance with the Independent Audit Post Approval Requirements (DPIE, 2020)	Note (Not Triggered by Sydney Metro)
A37	Notwithstanding Condition A36, 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 prior to commencement of the first audit and implemented throughout construction	Note (Not Triggered)

Condition no.	Condition	Reference within this SEMP
A38	Proposed independent auditors must be approved by the Planning Secretary before the commencement of an Independent Audit	Note (Not Triggered)
A39	The Planning Secretary may require the initial and subsequent Independent Audits to be undertaken at different times to those specified in the Independent Audit Post Approval Requirements (DPIE, 2020), upon giving at least four (4) weeks' notice (or timing as stipulated by the Planning Secretary) to the Proponent of the date upon which the audit must be commenced	Note (Not Triggered)
A40	Independent Audit Reports and the Proponent's response to audit findings must be submitted to the Planning Secretary within two (2) months of undertaking the independent audit site inspection as outlined in the Independent Audit Post Approval Requirements (DPIE, 2020), unless otherwise agreed by the Planning Secretary	Note (Not Triggered by Sydney Metro)
A41	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. The written notification must identify the CSSI (including the application number and the name of the CSSI if it has one) and set out the location and general nature of the incident.	Section 8
A43	Subsequent notification must be given and reports submitted in accordance with the requirements set out in Appendix A.	Section 8
A44	The Planning Secretary must be notified in writing via the Major Projects website within seven (7) days after the Proponent becomes aware of any non-compliance with the terms of this approval.	Section 8
A45	A non-compliance notification must identify the CSSI (including the application number for it), set out the condition of approval that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be undertaken to address the non-compliance. Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	Section 8
A46	All Heavy Vehicles used for spoil haulage must be clearly marked on the sides and rear with the project name and application number to enable immediate identification by a person viewing the	Note (Not Triggered)

Condition no.	Condition	Reference within this SEMP
	Heavy Vehicle standing 20 metres away	
A47	The CSSI name, application number, telephone number, postal address and email address required under Condition B3 must be available on site boundary fencing / hoarding at each ancillary facility before the commencement of construction. This information must also be provided on the website required under Condition B11.	Sign to be be provided at the Site Entrance and positioned on the adjacent Site construction fencing.
B1	The Overarching Community Communication Strategy as provided in the documents listed in Condition A1, or updated Strategy must be implemented for the duration of the work. Should the Overarching Community Communication Strategy be updated, a copy must be provided to the Planning Secretary for information.	Section 4.12
B2	A Complaints Management System must be prepared and implemented before the commencement of any work and maintained for the duration of construction and for a minimum for 12 months following completion of construction of the CSSI.	Section 7.3
B3	The following information must be available to facilitate community enquiries and manage complaints before the commencement of work and for 12 months following the completion of construction: (a) a 24- hour telephone number for the registration of complaints and enquiries about the CSSI; (b) a postal address to which written complaints and enquires may be sent; (c) an email address to which electronic complaints and enquiries may be transmitted; and (d) a mediation system for complaints unable to be resolved. This information must be accessible to all in the community regardless of age, ethnicity, disability or literacy level.	Section 7.3
B4	A Complaints Register must be maintained recording information on all complaints received about the CSSI during the carrying out of any work and for a minimum of 12 months following the completion of construction. The Complaints Register must record the:	Section 7.3

Condition no.	Condition	Reference within this SEMP
	(a) number of complaints received; (b) date and time of the complaint; (c) number of people (in the household) affected in relation to a complaint, if relevant; (d) method by which the complaint was made; (e) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; (f) issue of the complaint; (g) means by which the complaint was addressed and whether resolution was reached, with or without mediation; and (h) if no action was taken, the reason(s) why no action was taken.	
B5	Complainants must be advised of the following information before, or as soon as practicable after, providing personal information: (a) the Complaints Register may be forwarded to government agencies, including the Department (Department of Planning Industry and Environment, 4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150), to allow them to undertake their regulatory duties; (b) by providing personal information, the complainant authorises the Proponent to provide that information to government agencies; (c) the supply of personal information by the complainant is voluntary; and	Section 7.3

Condition no.	Condition	Reference within this SEMP
	(d) 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 must be included on the Proponent or development website to make prospective complainants aware of their rights under the Privacy and Personal Information Protection Act 1998 (NSW). For any complaints made in person, the complainant must be made aware of the Collection Statement.	
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 7.3
B7	A Community Complaints Mediator that is independent of the design and construction personnel must be engaged by the Proponent, upon the referral of the complaint by the ER in accordance with the Overarching Community Communication Strategy	Note (Not Triggered by Sydney Metro)
B8	The role of the Community Complaints Mediator is to provide independent mediation services for any reasonable and unresolved complaint referred by the ER where a member of the public is not satisfied by the Proponent's response. Where a Community Complaints Mediator is required, a mediator accredited under the National Mediator Accreditation System (NMAS), administered by the Mediator Standards Board must be appointed.	Note (Not Triggered)
B9	The Community Complaints Mediator will: (a) review any unresolved disputes, referred by the ER in accordance with the Overarching Community Communication Strategy;	Note (Not Triggered)

Condition no.	Condition	Reference within this SEMP
	(b) make recommendations to the Proponent to satisfactorily address complaints, resolve disputes or mitigate against the occurrence of future complaints or disputes; and (c) provide a copy of the recommendations, and the Proponent's response to the recommendations, to the Planning Secretary within one month of the recommendations being made.	
B10	Community Complaints Mediation will not be enacted before the Complaints Management System required by Condition B2 has been executed for a complaint and will not consider issues such as property acquisition, where other dispute processes are provided for in this approval, statute or clear government policy and resolution processes are available, or matters which are not within the scope of this CSS	Note (Not Triggered)
B11	A website or webpage providing information in relation to the CSSI must be established before commencement of work and maintained for the duration of construction, and for a minimum of 24 months following the completion of all stages of construction of the CSSI. Up-to-date information (excluding confidential, private, commercial information or other documents as agreed to by the Planning Secretary) must be published before the relevant work commencing and maintained on the website or dedicated pages including: (a) information on the current implementation status of the CSSI; (b) a copy of the documents listed in Condition A1, and any documentation relating to any modifications made to the CSSI or the terms of this approval; (c) a copy of this approval in its original form, a current consolidated copy of this approval (that is, including any approved modifications to its terms), and copies of any approval granted by the Minister to a modification of the terms of this approval, or links to the referenced documents where available;	Note

Condition no.	Condition	Reference within this SEMP
	(d) a copy of each statutory approval, licence or permit required and obtained in relation to the CSSI, or where the issuing agency maintains a website of approvals, licences or permits, a link to that website	
E1	All reasonably practicable measures must be implemented to minimise the emission of dust and other air pollutants during construction	Table 6-1
E15	The CSSI must be designed and constructed with the objective of not exceeding the flood impacts presented in the documents listed in Condition A1 or the flood impact criteria in Table 5, whichever is greater, within and in the vicinity of the CSSI for all flood events up to and including the one (1) per cent Annual Exceedance Probability (AEP) flood event. Measures identified in the documents listed in Condition A1 to limit flooding impacts or measures that achieve the same outcome must be incorporated into the detailed design of the CSSI	Note (Not Triggered)
E19	The Proponent must not destroy, modify or otherwise physically affect any Heritage item not identified in documents referred to in Condition A1. Unexpected heritage finds identified by the CSSI must be managed in accordance with the Unexpected Heritage Finds and Human Remains Procedure outlined in Conditions E34 to E36. Consideration of avoidance and redesign to protect unexpected finds of state heritage significance must be addressed where this condition applies	Table 5-3
E28	All reasonable steps must be taken so as not to harm, modify or otherwise impact Aboriginal objects or places of cultural significance except as authorised by this approval	Table 5-3
E29	The Registered Aboriginal Parties (RAPs) must be kept regularly informed about the CSSI. The RAPs must continue to be provided with the opportunity to be consulted about the Aboriginal cultural heritage management requirements of the CSSI throughout construction.	Note (Not Triggered, by Sydney Metro)

Condition no.	Condition	Reference within this SEMP
E34	An Unexpected Heritage Finds and Human Remains Procedure must be prepared to manage unexpected heritage finds (heritage items and values) in accordance with any guidelines and standards prepared by the Heritage Council of NSW or Heritage NSW.	Table 5-3, Appendix H
E35	The Unexpected Heritage Finds and Human Remains Procedure must be prepared by a suitably qualified and experienced heritage specialist in consultation with the Heritage Council of NSW (with respect to non-Aboriginal cultural heritage) and in relation to Aboriginal cultural heritage, in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010) and submitted to the Planning Secretary for information no later than one (1) month before the commencement of construction.	Table 5-3, Appendix H
E36	The Unexpected Heritage Finds and Human Remains Procedure, as submitted to the Planning Secretary, must be implemented for the duration of construction. Where archaeological investigations have been undertaken as a result of Unexpected Finds notifications then a Final Archaeological Report must be provided in accordance with Heritage Council guidance and standard requirements for final reporting under Excavation Permits	Note (Not Triggered)
E37	A detailed land use survey must be undertaken to confirm sensitive land use(s) (including critical working areas such as operating theatres and precision laboratories) potentially exposed to construction noise and vibration and construction ground-borne noise. The survey may be undertaken on a progressive basis but must be undertaken in any one area before the commencement of work which generates construction noise, vibration or ground-borne noise in that area. The results of the survey must be included in the Detailed Noise and Vibration Impact Statements required under Condition E4	Table 5-3
E38	Work must only be undertaken during the following hours: (a) 7:00am to 6:00pm Mondays to Fridays, inclusive;	Section 3.5

Condition no.	Condition	Reference within this SEMP
	(b) 8:00am to 1:00pm Saturdays; and (c) at no time on Sundays or public holiday	
E39	Except as permitted by an EPL or approved in accordance with the Out-of-Hours Works Protocol required by Condition E42, highly noise intensive work that result in an exceedance of the applicable NML at the same receiver must only be undertaken: (a) between the hours of 8:00 am to 6:00 pm Monday to Friday; (b) between the hours of 8:00 am to 1:00 pm Saturday; and (c) if continuously, then not exceeding three (3) hours, with a minimum cessation of work of not less than one (1) hour. For the purposes of this condition, 'continuously' includes any period during which there is less than one (1) hour between ceasing and recommencing any of the work.	Section 3.5
E40	This approval does not permit blasting	Note (Note Triggered)
E41	Notwithstanding Conditions E38 and E39 work may be undertaken outside the hours specified in the following circumstances: (a) Safety and Emergencies, including: (i) for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or (ii) where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm; or	Section 3.5.1

Condition no.	Condition	Reference within this SEMP
	(b) Low impact, including: (i) construction that causes LAeq(15 minute) noise levels: • no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, and • no more than the 'Noise affected' NMLs specified in Table 3 of the ICNG at other sensitive land user(s); and (ii) construction that causes: • continuous or impulsive vibration values, measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.2 of Assessing Vibration: a technical guideline (DEC, 2006), or • intermittent vibration values measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.4 of Assessing Vibration: a technical guideline (DEC, 2006); or (c) By Approval, including: (i) where different construction hours are permitted or required under an EPL in force in respect of the CSSI; or (ii) works which are not subject to an EPL that are approved under an Out-of-Hours Work Protocol as required by Condition E42; or (iii) negotiated agreements with directly affected residents and sensitive land user(s); or (d) By Prescribed Activity, including: (i) tunnelling and ancillary support activities (excluding cut and cover tunnelling and surface works not directly supporting tunneling) are permitted 24 hours a day, seven days a week; or	

Condition no.	Condition	Reference within this SEMP
	(ii) grout batching at the Orchard Hills construction site is permitted 24 hours per day, seven days per week; or (iii) delivery of material that is required to be delivered outside of standard construction hours in Condition E38 to directly support tunnelling activities, except between the hours 10:00 pm and 7:00 am to / from the Orchard Hills ancillary facility; or (iv) haulage of spoil generated through tunnelling is permitted 24 hours per day, seven days per week except between the hours of 10:00 pm and 7:00 am to / from the Orchard Hills construction site; or (v) works within an acoustic enclosure are permitted 24 hours a day, seven days a week where there is no exceedance of noise levels or intermittent vibration levels under Low impact circumstances identified in Condition E41(b), unless otherwise agreed with the Planning Secretary; or (vi) tunnel and underground station box fit out works are permitted 24 hours per day, seven days per week On becoming aware of the need for emergency work in accordance with (a)(ii) above, the ER, the Planning Secretary and the EPA must be notified of the reasons for such work. The Proponent must use best endeavours to notify as soon as practicable all noise and/or vibration affected sensitive land user(s) of the likely impact and duration of those work	
E42	An Out-of-Hours Work Protocol must be prepared to identify a process for the consideration, management and approval of work (not subject to an EPL) that is outside the hours defined in Conditions E38 and E39. The Protocol must be approved by the Planning Secretary before commencement of the out-of-hours work. The Protocol must be prepared in consultation with the ER. The Protocol must provide: (a) justification for why out-of-hours work need to occur; (b) identification of low and high-risk activities and an approval process that considers the risk of activities, proposed mitigation, management, and coordination, including where: (i) the ER reviews all proposed out-of-hours activities and confirms their risk levels; (ii) low risk activities that can be approved by the ER; and (iii) high risk activities that are approved by the Planning Secretary;	Section 6.2

Condition no.	Condition	Reference within this SEMP
	(c) a process for the consideration of out-of-hours work against the relevant NML and vibration criteria; (d) a process for selecting and implementing mitigation measures for residual impacts in consultation with the community at each affected location, including respite periods consistent with the requirements of Condition E56. The measures must take into account the predicted noise levels and the likely frequency and duration of the out-of-hours works that sensitive land user(s) would be exposed to, including the number of noise awakening events; (e) procedures to facilitate the coordination of out-of-hours work including those approved by an EPL or undertaken by a third party, to ensure appropriate respite is provided; and (f) notification arrangements for affected receivers for all approved out-of-hours works and notification to the Planning Secretary of approved low risk out-of-hours works. This condition does not apply if the requirements of Condition E41 are met. Note: Out-of-hours work is any work that occurs outside the construction hours identified in Condition E38 and E39.	
E43	Mitigation measures must be implemented with the aim of achieving the following construction noise management levels and vibration criteria: (a) construction 'Noise affected' noise management levels established using the Interim Construction Noise Guideline (DECC, 2009); (b) preferred vibration criteria established using the Assessing vibration: a technical guideline (DEC, 2006) (for human exposure); (c) Australian Standard AS 2187.2 - 2006 "Explosives - Storage and Use - Use of Explosives" (for human exposure); (d) BS 7385 Part 2-1993 "Evaluation and measurement for vibration in buildings Part 2" as they are "applicable to Australian conditions"; and	Section 3.5.1

Condition no.	Condition	Reference within this SEMP
	(e) the vibration limits set out in the German Standard DIN 4150-3: Structural Vibration- effects of vibration on structures (for structural damage). Any work identified as exceeding the noise management levels and / or vibration criteria must be managed in accordance with the Noise and Vibration CEMP Sub-plan.	
E44	All reasonable and feasible mitigation measures must be applied when the following residential ground-borne noise levels are exceeded: (a) evening (6:00 pm to 10:00 pm) — internal LAeq(15 minute): 40 dB(A); and (b) night (10:00 pm to 7:00 am) — internal LAeq(15 minute): 35 dB(A). The mitigation measures must be outlined in the Noise and Vibration CEMP Sub-plan, including in any Out-of-Hours Work Protocol, required by Condition E42	Under Development
E45	Noise generating work in the vicinity of potentially-affected community, religious, educational institutions and noise and vibration-sensitive businesses and critical working areas (such as theatres, laboratories and operating theatres) resulting in noise levels above the NMLs must not be timetabled within sensitive periods, unless other reasonable arrangements with the affected institutions are made at no cost to the affected institution.	Section 3.5.1
E46	Detailed Noise and Vibration Impact Statements (DNVIS) must be prepared for any work that may exceed the NMLs, vibration criteria and / or ground-borne noise levels specified in Conditions E43 and E44 at any residence outside construction hours identified in Condition E38, or where receivers will be highly noise affected or subject to vibration levels above those otherwise determined as appropriate by a suitably qualified structural engineer under Condition E87. The DNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the works. A copy of the DNVIS must be provided to the ER before the commencement of the associated works. The Planning Secretary and the EPA may request a copy (ies) of the DNVIS.	Section 6.2.1

Condition no.	Condition	Reference within this SEMP
E47	Detailed Noise and Vibration Impact Statements (DNVIS) must be prepared for any work that may exceed the NMLs, vibration criteria and / or ground-borne noise levels specified in Conditions E43 and E44 at any residence outside construction hours identified in Condition E38, or where receivers will be highly noise affected or subject to vibration levels above those otherwise determined as appropriate by a suitably qualified structural engineer under Condition E87. The DNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the works. A copy of the DNVIS must be provided to the ER before the commencement of the associated works. The Planning Secretary and the EPA may request a copy (ies) of the DNVI	Under development
E48	Owners and occupiers of properties at risk of exceeding the screening criteria for cosmetic damage must be notified before works that generate vibration commences in the vicinity of those properties. If the potential exceedance is to occur more than once or extend over a period of 24 hours, owners and occupiers must be provided a schedule of potential exceedances on a monthly basis for the duration of the potential exceedances, unless otherwise agreed by the owner and occupier. These properties must be identified and considered in the Noise and Vibration CEMP Sub-plan	Under development (E47)
E54	Vibration testing must be conducted during vibration generating activities that have the potential to impact on Heritage items to verify minimum working distances to prevent cosmetic damage. In the event that the vibration testing and attended monitoring shows that the preferred values for vibration are likely to be exceeded, the Proponent must review the construction methodology and, if necessary, implement additional mitigation measures. Such measures must include, but not be limited to, review or modification of excavation techniques.	Note (Not Triggered)
E55	The Proponent must seek the advice of a heritage specialist on methods and locations for installing equipment used for vibration, movement and noise monitoring at Heritage item	Note (Not Triggered)
E56	All work undertaken for the delivery of the CSSI, including those undertaken by third parties (such as utility relocations), must be coordinated to ensure respite periods are provided. The Proponent must:	Note (Not Triggered)

Condition no.	Condition	Reference within this SEMP
	(a) reschedule any work to provide respite to impacted noise sensitive land use(s) so that the respite is achieved in accordance with Condition E57; or (b) consider the provision of alternative respite or mitigation to impacted noise sensitive land use(s); and (c) provide documentary evidence to the ER in support of any decision made by the Proponent in relation to respite or mitigation. The consideration of respite must also include all other approved Critical SSI, SSI and SSD projects which may cause cumulative and / or consecutive impacts at receivers affected by the delivery of the CSSI.	
E57	In order to undertake out-of-hours work outside the work hours specified under Condition E38, appropriate respite periods for the out-of-hours work must be identified in consultation with the community at each affected location on a regular basis. This consultation must include (but not be limited to) providing the community with: (a) a progressive schedule for periods no less than three (3) months, of likely out-of-hours work; (b) a description of the potential work, location and duration of the out-of-hours work; (c) the noise characteristics and likely noise levels of the work; and (d) likely mitigation and management measures which aim to achieve the relevant NMLs under Condition E43 (including the circumstances of when respite or relocation offers will be available and details about how the affected community can access these offers). The outcomes of the community consultation, the identified respite periods and the scheduling of the likely out-of-hour work must be provided to the ER, EPA and the Planning Secretary prior to the out-of-hours work commencing.	Section 3.5
E62	The CSSI must be constructed in a manner that minimises visual impacts of construction sites including temporary landscaping and vegetative screening, minimising light spill, and incorporating architectural treatment and finishes within key elements of temporary structures that reflect the context within which the construction sites are located, wherever practicable.	Section 6.4, SE 38 to SE 43

Condition no.	Condition	Reference within this SEMP
E64	The CSSI must be constructed and operated with the objective of minimising light spill to surrounding properties. All lighting associated with the CSSI must be consistent with the requirements of: (a)ASINZS 4282:2019 Control of the obtrusive effects of outdoor lighting, relevant Australian Standards in the series ASINZS 1158 - Lighting for Roads and Public Spaces; (b)NASF Guideline E: Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports; and (c) NASF Guideline C: Managing the risk of wildlife strikes in the vicinity of airports. Mitigation measures must be provided to manage residual night lighting impacts to protect properties adjoining or adjacent to the CSSI, in consultation with affected landowners	Note (Not Triggered)
E82	The CSSI must be designed and constructed with the objective of minimising impacts to, and interference with third party property, and that such infrastructure and property is protected during construction	Note (Not Triggered)
E83	The utilities and services (hereafter "services") potentially affected by construction must be identified to determine requirements for diversion, protection and / or support. Alterations to services must be determined by negotiation between the Proponent and the service providers. Disruption to services resulting from construction must be avoided, wherever possible, and advised to customers where it is not possible.	Note (Not Triggered)
E84	A suitably qualified and experienced person must undertake condition surveys of all buildings, structures, utilities and the like identified in the documents listed in Condition A1 and the further assessment carried out under mitigation measure GW1 of the Submissions Report as being at risk of damage before commencement of any work that could impact on the subject surface / subsurface structure. The results of the surveys must be documented in a Pre-construction Condition Survey Report for each item surveyed. Copies of Pre-construction Condition Survey Reports must be provided to the relevant owners of the items surveyed in the vicinity of the proposed work, and no later than one (1) month before the commencement of the work that could impact on the subject surface / subsurface structure	Section 7.7
E85	Condition surveys of all items for which condition surveys were undertaken in accordance with Condition E84 must be undertaken by a suitably qualified and experienced person after completion of the work identified in Condition E84. The	Section 7.7

Condition no.	Condition	Reference within this SEMP
	results of the surveys must be documented in a Post-construction Condition Survey Report for each item surveyed. Copies of Post-construction Condition Survey Reports must be provided to the landowners of the items surveyed, and no later than three (3) months following the completion of the work that could impact on the subject surface / subsurface structure	
E86	The Proponent, where liable, must rectify any property damage caused directly or indirectly (for example from vibration or from groundwater change) by the work at no cost to the owner. Alternatively, the Proponent may pay compensation for the property damage as agreed with the property owner. Rectification or compensation must be undertaken within 12 months of completion of the work identified in Condition E84 unless another timeframe is agreed with the owner of the affected surface or sub-surface structure or recommended by the Independent Property Impact Assessment Panel (IPIAP	Section 7.8
E87	Appropriate equipment to monitor areas in proximity of ancillary facilities and the tunnel route must be installed during construction with particular reference to at risk buildings, structures and utilities identified in the condition surveys required by Condition E84 and / or geotechnical analysis as required. If monitoring during construction indicates exceedance of the vibration criteria identified in the DNVIS prepared under Condition E47, or levels otherwise determined as appropriate by a suitably qualified structural engineer, then all construction affecting settlement must cease immediately and must not resume until fully rectified or a revised method of construction is established that will ensure protection of affected buildings	Note (Not Triggered)
E91	Small Business Owners Engagement Plan(s) must be prepared for St Marys and implemented in accordance with the Overarching Community Communication Strategy to minimise impact on small businesses directly affected by construction activities at St Marys during construction. The plan must be prepared and submitted to the Planning Secretary for information before the commencement of construction at St Marys	Note
E98	An Unexpected Contaminated Land and Asbestos Finds Procedure must be prepared before the commencement of construction and must be followed should unexpected contaminated land or asbestos (or suspected contaminated land or asbestos) be excavated or otherwise discovered during construction.	Appendix G
E99	The Unexpected Contaminated Land and Asbestos Finds Procedure must be implemented throughout construction.	Note (Not Triggered)

Condition no.	Condition	Reference within this SEMP
E101	The Sustainability Plan must be submitted to the Planning Secretary for information within six (6) months of the date of this approval and must be implemented throughout construction and operation.	Note (Not Triggered) Specific process for IPO Section 4.5
E103	Construction Traffic Management Plans (CTMPs) must be prepared in accordance with the Construction Traffic Management Framework. A copy of the CTMPs must be submitted to the Planning Secretary for information before the commencement of any construction in the area identified and managed within the relevant CTMP	Section 6.4
E105	Local roads proposed to be used by Heavy Vehicles to directly access ancillary facilities / construction sites that are not identified in the documents listed in Condition A1 must be approved by the Planning Secretary and be included in the CTMP	Section 6.4
E106	All requests to the Planning Secretary for approval to use local roads under Condition E105 above must include the following: (a) a swept path analysis; (b) demonstration that the use of local roads by Heavy Vehicles for the CSSI will not (c) compromise the safety of pedestrians and cyclists of the safety of two-way traffic flow on (d) two-way roadways; (e) details as to the date of completion of the road dilapidation surveys for the subject local (f) roads; and (g) measures that will be implemented to avoid where practicable the use of local roads past (h) schools, aged care facilities and child care facilities during their peak operation times; and (i) written advice from an appropriately qualified professional on the suitability of the proposed (j) Heavy Vehicle route which takes into consideration items (a) to(d) of this condition.	Under Development
E107	Before any local road is used by a Heavy Vehicle for the purposes of construction of the CSSI, a Road Dilapidation Report must be prepared for the road. A copy of the Road Dilapidation Report must be provided to the Relevant Road Authority(s) within three (3) weeks of completion of the survey and at no later than one (1) month before the road being used by Heavy Vehicles associated with the construction of the CSSI.	Section 6.4

Condition no.	Condition	Reference within this SEMP
E108	If damage to roads occurs as a result of the construction of the CSSI, the Proponent must either (at the Relevant Road Authority's discretion): (a) compensate the Relevant Road Authority for the damage so caused; or (b) rectify the damage to restore the road to at least the condition it was in pre-work as identified in the Road Dilapidation Report.	Note (Not Triggered)
E109	Vehicles associated with the project workforce (including light vehicles and Heavy Vehicles) must be managed to: (a) minimise parking on public roads; (b) minimise idling and queueing on state and regional roads; (c) not carry out marshalling of construction vehicles near sensitive land use(s); (d) not block or disrupt access across pedestrian or shared user paths at any time unless alternate access is provided; and (e) ensure spoil haulage vehicles adhere to the nominated haulage routes identified in the CTMP.	Section 4.2
E110	Access to all utilities and properties must be maintained during works, unless otherwise agreed with the relevant utility owner, landowner or occupier.	Section 6.4, SE 4
E111	The Proponent must maintain access to properties during the entirety of works unless an alternative access is agreed in writing with the landowner(s) whose access is impacted by the CSSI works.	Section 6.4, SE 4
E112	Where construction of the CSSI restricts a property's access to a public road, the Proponent must, until their primary access is reinstated, provide the property with temporary alternate access to an agreed road decided through consultation with the landowner, at no cost to the property landowner, unless otherwise agreed with the landowner.	Note (Not Triggered)
E113	Any property access physically affected by the CSSI must be reinstated to at least an equivalent standard, unless otherwise agreed by the landowner or occupier. Property access must be reinstated within one (1) month of the work that physically affected the access is completed or in any other timeframe agreed with the landowner or occupier.	Section 6.4, SE 4

Condition no.	Condition	Reference within this SEMP
E114	During construction, all reasonably practicable measures must be implemented to maintain pedestrian, cyclist and vehicular access to, and parking in the vicinity of, businesses and affected properties. Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be avoided, alternative pedestrian, cyclist and vehicular access, and parking arrangements must be developed in consultation with affected businesses and landowners and implemented before the disruption. Adequate signage and directions to businesses must be provided before, and for the duration of, any disruption	Section 4.1
E115	Safe pedestrian and cyclist access must be maintained around the St Marys construction site during construction. In circumstances where pedestrian and cyclist access is restricted or removed due to construction activities, a proximate alternate route which complies with the relevant standards, must be provided and signposted before the restriction or removal of the impacted access.	Section 4.1
E116	A Traffic and Transport Liaison Group(s) must be established in accordance with the Construction Traffic Management Framework to inform the development of CTMP.	Note (Not Triggered)
E117	Supplementary analysis and modelling as required by TfNSW and / or the Traffic and Transport Liaison Group(s) must be undertaken to demonstrate that construction and operational traffic can be managed to minimise disruption to traffic network operations, including changes to and the management of pedestrian, bicycle and public transport networks, public transport services, and pedestrian and cyclist movements. Revised traffic management measures must be incorporated into the CTMP. Permanent road works included in the CSSI must be designed, constructed and operated with the objective of integrating with existing and proposed road and related transport networks and minimising adverse changes to the safety, efficiency and, accessibility of the network. Design and assessment of related traffic, parking, pedestrian and cycle accessibility impacts and changes shall be undertaken: (a) in consultation with, and to the reasonable requirements of the relevant Traffic and Transport Liaison Group;	Note (Not Triggered)

Condition no.	Condition	Reference within this SEMP
	(b) in consideration of existing and future demand, connectivity (in relation to permanent changes), performance and safety requirements; (c) to minimise and manage local area traffic impacts; (d) to, where possible and appropriate, retain or reinstate parking in St Marys; (e) to ensure access is maintained to property and infrastructure (f) to address relevant design, engineering and safety guidelines, including Austroads, Australian Standards and TfNSW requirements. Copies of civil, structural and traffic signal design plans shall be submitted to the Relevant Road Authority for consultation during design development and before completion of construction of the CSSI	
E120	The CSSI must be designed and constructed with the objective of minimising impacts to, and interference with utilities infrastructure, and that such infrastructure and property is protected during construction. Utilities, services and other infrastructure potentially affected by construction must be identified before works affecting the item, to determine requirements for access to, diversion protection, and / or support. The relevant owner(s) and / or provider(s) of services must be consulted to make suitable arrangements for access to diversion, protection, and / or support of the affected infrastructure as required. The Proponent must ensure that disruption to any service is minimised and be responsible for advising local residents and businesses affected before any planned disruption of service	Note (Not Triggered)
E122	Waste generated during construction and operation must be dealt with in accordance with the following priorities: (a) waste generation must be avoided and where avoidance is not reasonably practicable, waste generation must be reduced; (b) where avoiding or reducing waste is not possible, waste must be re-used, recycled, or recovered; and (c) where re-using, recycling or recovering waste is not possible, waste must be treated or disposed of.	Note (Not Triggered)

Condition no.	Condition	Reference within this SEMP
E123	The importation of waste and the storage, treatment, processing, reprocessing or disposal of such waste must comply with the conditions of the current EPL for the CSSI, or be done in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, as the case may be.	Note (Not Triggered)
E124	Waste must only be exported to a site licensed by the EPA for the storage, treatment, processing, reprocessing or disposal of the subject waste, or in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, or to any other place that can lawfully accept such waste	Note (Not Triggered)
E125	All waste must be classified in accordance with the EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes.	Note (Not Triggered)
E126	The CSSI must be designed and constructed so as to maintain the NSW Water Quality Objectives (NSW WQO) where they are being achieved as at the date of this approval, and contribute towards achievement of the NSW WQO over time where they are not being achieved as at the date of this approval, unless an EPL in force in respect of the CSSI contains different requirements in relation to the NSW WQO, in which case those requirements must be complied with	Note (Not Triggered)
E128	Before undertaking any work and during maintenance or construction activities, erosion and sediment controls must be implemented and maintained to prevent water pollution consistent with Managing Urban Stormwater: Soils and Construction Vol 1 4th ed. by Landcom, 2004 (The Blue Book).	Note (Not Triggered)
E130	If construction stage stormwater discharges are proposed, a Water Pollution Impact Assessment will be required. Any such assessment must be prepared in consultation with the EPA and be consistent with the National Water Quality Guidelines, with a level of detail commensurate with the potential water pollution risk	Note (Not Triggered)

Table A-2 - Revised mitigation measures relevant to this SEMP

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
T1	Construction Traffic Management Plans would be prepared in accordance with the Construction Traffic Management Framework	Prior to works	Built	Section 4.1
T2	The Construction Traffic Management Plan for St Marys would be developed **in consultation with the Traffic and Transport Liaison Group** to ensure existing transport interchange infrastructure continues to operate effectively within the St Marys station precinct	Prior to works	Built	Section 4.1
T5	Maintain access for pedestrians and cyclists around construction sites as per the guidelines outlined in the Construction Traffic Management Framework. Appropriate signage and line marking would be provided to guide pedestrians and cyclists past construction sites and on the surrounding network to allow access to be maintained	During works	Built	Section 4.1
T6	Access for construction vehicles to be planned as per the guidelines outlined in the Construction Traffic	Prior to works	Built	Section 4.1

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	Management Framework. Construction site traffic would be managed to minimise movements during peak periods. Vehicle access to and from construction sites would be managed to maintain pedestrian, cyclist and motorist safety			
T9	A construction worker car parking strategy for St Marys would be prepared in consultation with Penrith City Council and Transport for NSW prior to the commencement of construction. The strategy would seek to: • **minimise overall demand for construction worker car parking through initiatives such as use of other project construction worksites in combination with shuttle buses, car-pooling and encouraging the**	Prepared prior to works Implemented during works	Built	Section 4.1

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	use of public transport • **minimise potential use of on-street car parking by construction workers** **The construction worker car parking strategy would be implemented throughout construction**			
OT2	The project would be designed such that access to properties and existing infrastructure neighbouring the proposed stations would be maintained	Prior to works	Built	Section 3.3
NAH9	If suspected human remains or unexpected items of potential heritage significance are discovered within the on-airport area, all activity would cease and the unexpected/chance finds requirements specified in the *Western Sydney Airport European and Other Heritage Construction Environmental Management Plan* would be followed	Not Triggered; no works within the on-airport area	N/A	N/A
ONAH1	Design development for the project would endeavour to	Prior to works	Built	Section 4.7

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	minimise adverse impacts to heritage buildings, elements, fabric, and heritage significant settings and view lines that contribute to the overall heritage significance of heritage items			
ONAH2	The architectural design for the project would take account local heritage context and be sympathetic to local heritage character. This would include using sympathetic building materials, colours and finishes Design should aim to minimise visual impacts by ensuring that significant elements are not obstructed or overshadowed Design should adhere to the Sydney Metro – Western Sydney Airport Design Guidelines The Design Review Panel and Heritage Working Group would be consulted in regard to the design, form and material of new built structures that may impact heritage items	Prior to works	Built	Not applicable to the SEMP

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
ONAH3	Consultation with the Heritage Council **and relevant stakeholders** would occur for the design of works that have the potential to impact State significant items including St Marys Railway Station	Prior to works	Sydney Metro	Not yet triggered / Not applicable to the SEMP
AH10	Impacted Aboriginal Sites would be managed in accordance with the Aboriginal Cultural Heritage Management Plan	Not triggered	N/A	Section 4.7
AH11	Measures would be implemented to ensure that Aboriginal sites located outside of the construction footprint, but within 100m of it, would not be affected by construction activities	Not triggered	N/A	Section 4.7
HYD1	Construction planning would consider flood related mitigation, including: • staging construction works to reduce the duration of works within the floodplain • daily and continuous monitoring of weather forecasts and storm events, rainfall levels and	Not Triggered	N/A	The SPO project is not making adjustment to the existing surface levels of the site.

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	water levels in key watercourses to identify potential flooding events and related flood emergency response • consultation with NSW State Emergency Services and relevant local councils to ensure consistent approaches to the management of flood events (off-airport only) • provide flood-proofing to excavations at risk of flooding during construction, where reasonable and feasible, such as raised entry into shafts and/or pump-out facilities to minimise ingress of floodwaters into shafts and the dive structure			

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	• review of site layout and staging of construction works to avoid or minimise obstruction of overland flow paths and limit the extent of flow diversion required			
SC5	An unexpected finds procedure would be developed and implemented as part of the project Soil and Water Management Plan, outlining a set of potential contamination issues which could be encountered, and detailing the **management** actions to be implemented. The unexpected finds procedure would include a process for chemical and asbestos contamination and would generally include: • cessation of works within the affected area until inspection of the suspected contamination by a qualified contaminated lands consultant	Prior to works for Implementation during works	Built	Appendix G

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	• collection of soil samples for chemical or asbestos analysis, **where required**, based on observations • assessment of results against applicable land use or waste classification criteria in accordance with **statutory guidelines made or endorsed by the** NSW Environment Protection Authority • management of the contamination in accordance with **statutory guidelines made or endorsed by the** NSW Environment Protection Authority • the unexpected finds procedure for on-airport construction would be consistent with the Western Sydney			

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	Airport unexpected finds procedure detailed in the Western Sydney Airport Soil and Water Construction Environmental Management Plan (Western Sydney Airport, 2019)			
SUS1	A Sustainability Plan would be developed and implemented during construction of the project. The Sustainability Plan would identify the sustainability, climate change and greenhouse gas objectives, initiatives and targets which would be implemented during further design development and construction of the project. The Sustainability Plan would be developed to be consistent with the Western Sydney Airport Sustainability Plan for on-airport works The Sustainability Plan would also inform the preparation of Sustainability Management	Not triggered		Not Triggered as this project is not considered Construction works.

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	Plans for each off-airport construction work package			
SUS2	Protect sensitive construction equipment from the effects of extreme weather, such as direct exposure to the sun on extreme heat days and flooding	Not triggered		Not Triggered as this project is not considered Construction works.
SUS3	Address climate change impacts in emergency management procedures for the construction of the project, such as consideration of impacts of flash flooding on evacuation procedures	Not triggered		Not Triggered as this project is not considered Construction works.
WR1	Construction waste would be minimised by accurately calculating materials brought to the site and limiting materials packaging	Prior to commencement	Built	Section 4.13
WR2	Waste streams would be segregated to avoid cross-contamination of materials and maximise reuse and recycling opportunities	Prior to commencement	Built	Section 4.13
LU1	Areas of land leased for the purposes of construction would be reinstated at the end of the lease to at least equivalent standard in	Not triggered at SPO site (land is owned by Sydney Metro)	N/A	N/A

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	consultation with the landowner	After completion of works for 19 Harris Street	Sydney Metro	
LV1	Opportunities for the retention and protection of existing street trees and trees within the construction sites would be identified during detailed construction planning	Prior to commencement	Built	Section 6.4, SE 24 SE 25
LV2	Existing trees to be retained would be protected prior to the commencement of construction in the vicinity of these trees in accordance with AS4970-2009 Protection of Trees on Development Sites	Prior to commencement	Built	Section 6.4, SE 26
LV3	All structures (including potential acoustic sheds, site offices, workshop sheds and site hoarding) would be finished in a colour which aims to minimise their visual impact where appropriate. This finish is to be applied to all visible fixtures and fittings (such as exposed downpipes)	Detailed design	Built	Section 6.4, SE 38
HR1	All hazardous substances that may be required for construction would be stored	During the works	Built	Section 4.6

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	and managed in accordance with the *Storage and Handling of Dangerous Goods Code of Practice* (WorkCover NSW, 2005), the *Hazardous and Offensive Development Application Guidelines: Applying SEPP 33* (Department of Planning, Industry and Environment, 2011) the *Work Health and Safety Act 2011* (Commonwealth and NSW) and the requirements of the *Environmentally Hazardous Chemicals Act 1985* (NSW)			
HR3	A hazardous materials analysis would be carried out prior to stripping and demolition of structures and buildings which are suspected of containing hazardous materials (particularly asbestos) Hazardous materials and special waste (such as asbestos) would be removed and disposed of in accordance with the relevant legislation, codes of practice and Australian Standards (including the Work Health	Prior to commencement	Sydney Metro	Section 4.4

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	and Safety and Regulation 2011 (NSW))			
CL1	A Cumulative Construction Impacts Management Plan would be developed and would detail co-ordination and consultation requirements with the following stakeholders (as relevant) to manage the interface of projects under construction at the same time: • Western Sydney Airport • Transport for NSW • Western Parkland City Authority • Sydney Water • Emergency service providers • Utility providers Co-ordination and consultation requirements with these stakeholders would be detailed in the plan to include: • provision of regular updates to the detailed construction program,	Prior to commencement	Sydney Metro	Section 4.11

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	construction sites and haul routes • identification of key interfaces with other construction projects • development of mitigation strategies to manage cumulative impacts associated with these interfaces			

Table A-3 - CEMF conditions relevant to this SEMP

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
5.1 a	Standard working hours are between 7am – 6pm on weekdays and 8am – 1pm on Saturdays.	During the works	Built	Section 3.5
5.1 b	Works which can be undertaken outside of standard construction hours without any further approval include: i. Those which have been described and assessed in the environmental assessments. For example, tunnelling and underground excavations and supporting activities or works within Western Sydney International ii. Works which are determined to comply with the relevant Noise Management Level at sensitive receivers; iii. The delivery of materials outside of approved hours as required by the Police or other authorities(including Transport for NSW) for safety reasons; iv. Where it is required to avoid the loss of lives, property and / or to prevent environmental harm in an emergency; and v. Where written agreement is reached with all affected receivers.	During the works	Built	Section 3.5.1

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
5.2 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. This document applies to Principal Contractors and forms part of the contract documentation.	Prior to commencement	Built	Section 5.2, SE 3
5.2 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.	Prior to commencement	Built	Section 5.2, SE 3
5.3 a	Principal Contractors will consider the following in the layout of construction sites: i. The location of noise intensive works and 24 hour activities in relation to noise sensitive receivers; ii. The location of site access and egress points in relation to noise and light sensitive receivers,	N/A N/A		

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	especially for sites proposed to be utilized 24 hours per day; iii. The use of site buildings to shield noisy activities from receivers; 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; and v. Aim to minimise the requirement for reversing, especially of heavy vehicles	N/A N/A Prior to commencement of works	Built	Section 5.2, SE 3
5.4.a	Where measures for reinstatement are not stipulated in the contracts, mitigation measures for reinstatement of construction and ancillary lands will be produced in consultation with Sydney Metro, the landowner and stakeholders.	N/A		
5.4.b	Mitigation measures required for reinstatement will be incorporated into the CEMP and will include as a minimum: i. Principal Contractors will clear and clean all working areas and accesses at project completion;	N/A		

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	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; 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 iv. Reinstatement of community spaces, infrastructure and services will occur as soon as possible after completion of construction			
8.2 b	Detailed Construction Noise and Vibration Impact Statements will be prepared for noise-intensive construction sites and or activities to ensure the adequacy of the noise and vibration mitigation measures. Specifically, Construction Noise and Vibration Impact Statements will be prepared for works proposed to be under taken outside of standard construction hours and to support applications to undertake out of hours works (this includes variations of EPLs and applications to relevant agencies).	Prior to commencement of works	Built	Section 6.2.1
8.2 c	Noise and vibration monitoring would be undertaken for construction as specified in the CNVS.	Prior to commencement of works	Built	Section 7.4.1

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
8.2 d	The following compliance records would be kept by Principal Contractors: i. Records of noise and vibration monitoring results against appropriate NMLs and vibration criteria; and ii. Records of community enquiries and complaints, and the Contractor's response.		Built	Section 7.4.1 Section 7.3
9.1.a	The following heritage management objectives will apply to construction: i. Embed significant heritage values through any architectural design, education or physical interpretation; ii. Minimise impacts on items or places of heritage value; iii. Avoid accidental impacts on heritage items; iv. Maximise worker's awareness of indigenous and non-indigenous heritage; and v. For on-airport works, the Sydney Metro Western Sydney Airport Aboriginal Cultural Heritage CEMP and the European and Other Heritage CEMP will detail all the heritage management objectives and will be consistent with the WSA Aboriginal Cultural Heritage CEMP and European and Other Heritage CEMP, including all appendices to these CEMP documents.	N/A During Construction During Construction Site Induction N/A	Built Built Built	Appendix H Appendix H Appendix H

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
9.2.a	ix. Procedures for unexpected heritage finds, including procedures for dealing with human remains; xi. Compliance record generation and management.	During the works During the works	Built Built	Appendix H Appendix H
9.2.b	The Contractor's regular inspections will include checking of Aboriginal and non-Aboriginal heritage mitigation measures.	During the works	Built	Appendix H
9.2.c	Compliance records will be retained by the Contractor. These will include: i. Inspections undertaken in relation to heritage management measures; ii. Archival recordings undertaken of any heritage item; iii. Unexpected finds and stop work orders;	 As required As required As required	 Built Built Built	 Appendix H Appendix H Appendix H
10.1.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; iv. Appropriately manage the spread of weeds and plant pathogens; and	 Prior to commencement N/A Prior to commencement N/A N/A	 Built Built	 Section 4.10 Section 4.10

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	v. For on-airport works, the Sydney Metro Western Sydney Airport Biodiversity CEMP will detail all fauna and flora management objectives and will be consistent with the WSA Biodiversity CEMP, including all appendices to the Biodiversity CEMP.			
10.2.a	viii. Identification of measures to reduce disturbance to sensitive fauna x. Weed and disease management measures focusing on early identification of invasive weeds and diseases. Protocols to address the effective management of these risks; xiv. Compliance record generation and management.	N/A If required	Built	Section 4.10
10.2.c	The Principal Contractor's regular inspections will include a check on the ecological mitigation measures and project boundary fencing	As required	Built	Section 4.10
10.3	The on-airport Biodiversity CEMP and the off-airport Flora and Fauna Management Plan will include the following flora and fauna mitigation measures as well as any relevant Conditions: i. Areas to be retained and adjacent habitat areas will be fenced off prior to works to prevent damage or accidental over clearing; ii. Clearing will follow a two-stage process as follows:	N/A		

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	□ Non-habitat trees will be cleared first after sign-off of the pre-clearing inspection; and □ Habitat trees will 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 will be left on the ground for 24 hours or inspected by the ecologist prior to further processing. iii. Weed management is to be undertaken in areas affected by construction prior to any clearing works. Off-airport weed management will be undertaken in accordance with the NSW Noxious Weeds Act 1993. On-airport weed management will also be undertaken in accordance with the NSW Noxious Weeds Act 1993 and the NSW Biosecurity Act 2015, which is consistent with the approach adopted in the Western Sydney Airport Weed and Disease Management Plan (Appendix C of the Western Sydney Airport Biodiversity CEMP).			
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;	During the works N/A	Built	Section 3.2

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	iii. Reduce visual impact of construction to surrounding community; and iv. For on-airport works, the Sydney Metro Western Sydney Airport Visual and Landscape CEMP will detail all the visual amenity and landscaping management objectives and will be consistent with the WSA Visual and Landscape CEMP, including all the appendices to the CEM	During the works N/A	Built/SM	Section 3.2
11.2.a	On-airport management of visual and landscaping will be achieved through the implementation of the SMWSA Visual and Landscape CEMP and Principal Contractors will develop and implement a Visual Amenity Management Plan for all the off-airport temporary works which will include as a minimum: i. The visual mitigation measures as detailed in the planning approval documentation for construction; ii. Input from an experienced Landscape or Urban Designer; iii. The maintenance of outward facing elements of site hoarding or noise barriers, including the removal of graffiti and weeds; 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;	N/A During Construction N/A	Built	Section 3.2

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	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; and vi. Compliance record generation and management.	N/A N/A		
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.	During the works	Built	Section 7.4
11.2.c	The Contractor will retain compliance records of any inspections undertaken in relation to visual and landscape measures.	If required	Built	Not Triggered
11.3.a	The on-airport Visual and Landscape CEMP and the off-airport Visual Management Plan will include the following visual amenity mitigation measures as well as relevant Conditions: i. Wherever feasible and reasonable, vegetation around the perimeter of the construction sites will be maintained;	During the works	Sydney Metro	

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	ii. Existing vegetation not affected by the construction works will be retained;	During the works	Sydney Metro	
	iii. Temporary construction works will be designed with consideration of urban design and visual amenity as per Section 4.4; and	During the works	Built	Section 3
	iv. Temporary site lighting, for security purposes or night works will be installed and operated in accordance with AS4282:1997 Control of the Obtrusive Effect of Outdoor Lighting	During the works	Built	Section 3
12.1.a	a. The following soil and water management objectives will apply to construction: i. Minimise demand for, and use of potable water; ii. Maximise opportunities for water re-use from captured stormwater, wastewater and groundwater; iii. Examples of measures to minimise potable water consumption include: • Water efficient controls, fixtures and fittings in temporary facilities; • Collecting, treating and reusing water generated in tunnelling operations, concrete batching and casting facility processes;	During the works	Built	Section 3, 6 & Equivalency Pathway (Appendix E)

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	• Using recycled water or treated water from onsite sources in the formulation of concrete; • Harvesting and reusing rainwater from roofs of temporary facilities; • Using water from recycled water networks; • Collecting, treating and reusing groundwater and stormwater; • Using water efficient construction methods and equipment; and • Providing designated sealed areas for equipment wash down. i. Minimise pollution of surface water through appropriate erosion and sediment control; ii. Minimise leaks and spills from construction activities; iii. Maintain existing water quality of surrounding surface watercourses; iv. Source construction water from non-potable sources, where feasible and reasonable; and v. For on-airport works, the Sydney Metro Western Sydney Airport Soil and Water CEMP will detail all the soil and water management objectives and will be consistent with the WSA Soil and Water CEMP, including all appendices to the CEMP.	N/A		

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
12.2.a	On-airport management of soil and water will be achieved through the implementation of the SMWSA Soil and Water CEMP and Principal Contractors will develop and implement a Soil and Water Management Plan for all off-airport works. Both plans will include as a minimum: i. The soil and water mitigation measures as detailed in the planning approval documentation and sustainability requirements; ii. Details of construction activities and their locations, which have the potential to impact on water courses, storage facilities, stormwater flows, and groundwater; iii. Surface water and ground water impact assessment criteria consistent with the principles of the Australian and New Zealand Environment Conservation Council (ANZECC) guidelines for off-airport works and the Airports (Environment Protection) Regulations 1997 for on-airport works (with due consideration of the ANZECC guidelines); iv. Management measures to be used to minimise surface and groundwater impacts, including identification of water treatment measures and discharge points, details of how spoil and fill material	During the works	Built	Section 3, 6, Equivalency Pathway (Appendix E), Appendix G

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	required by the project will be sourced, handled, stockpiled, reused and managed; erosion and sediment control measures; salinity control measures and the consideration of flood events; v. A contingency plan, consistent with the NSW Acid Sulphate Soils Manual (EPA 1998), to deal with the unexpected discovery of actual or potential acid sulphate soils both on and off-airport lands. The plan must including procedures for the investigation, handling, treatment and management of such soils and water seepage; vi. Management measures for contaminated material (soils, water and building materials) and a contingency plan to be implemented in the case of unanticipated discovery of contaminated material, including asbestos, during construction; vii. A description of how the effectiveness of these actions and measures would be monitored during the proposed works, clearly indicating how often this monitoring would be undertaken, the locations where monitoring would take place, how the results of the monitoring would be recorded and reported, and, if any exceedance of the criteria is detected how any non-compliance can be rectified; viii. The requirements of any applicable licence conditions;			

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	ix. The responsibilities of key project personnel with respect to the implementation of the plan; x. Procedures for the development and implementation of Progressive Erosion and Sediment Control Plans; xi. Identification of locations where site specific Stormwater and Flooding Management Plans are required; and xii. Compliance record generation and management.			
12.2.b	Principal Contractors will develop and implement Progressive Erosion and Sediment Control Plans (ESCPs) for all active worksites in accordance with Managing Urban Stormwater: Soils & Construction Volume 1 (Landcom, 2004) (known as the "Blue Book"). The ESCPs will be approved by the Contractor's Environmental Manager (or delegate) prior to any works commencing (including vegetation clearing) on a particular site. Copies of the approved ESCP will be held by the relevant Contractor personnel including the Engineer and the Site Foreman.	During the works	Built	Section 4.4
12.2.c	ESCPs will detail all required erosion and sediment control measures for the particular site at the particular point in time	During the works	Built	Section 4.4

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	and be progressively updated to reflect the current site conditions. Any amendments to the ESCP will be approved by the Contractor's Environmental Manager (or delegate).			
12.2.d	Principal Contractors will develop and implement Stormwater and Flooding Management Plans for the relevant construction sites. These plans will identify the appropriate design standard for flood mitigation based on the duration of construction, proposed activities and flood risks. The plan will develop procedures to ensure that threats to human safety and damage to infrastructure are not exacerbated during the construction period.	N/A		
12.2.e	Principal Contractors will undertake the following soil and water monitoring as a minimum: i. Weekly inspections of the erosion and sediment control measures. Issues identified would be rectified as soon as practicable; ii. Additional inspections will be undertaken following significant rainfall events (greater than 20 mm in 24 hours); and iii. All water will be tested (and treated if required) prior to discharge from the site in order to determine compliance with the appropriate approvals and licencing. No water will be discharged from the site without written approval of the	During the works	Built	Section 7.4

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	Contractor's Environmental Manager (or delegate). This is to form a HOLD POINT.			
12.2.f	The following compliance records will be kept by the Principal Contractors: i. Copies of current ESCPs for all active construction sites; ii. Records of soil and water inspections undertaken; iii. Records of testing of any water prior to discharge; and iv. Records of the release of the hold point to discharge water from the construction site to the receiving environment.	During the works	Built	Section 7.4
12.2.g	g. The following water resources management objectives will apply to the construction of the project: i. Minimise demand for, and use of potable water; ii. Maximise opportunities for water re-use from captured stormwater, wastewater and groundwater; iii. Examples of measures to minimise potable water consumption include: • Water efficient controls, fixtures and fittings in temporary facilities;	During the works	Built	Not applicable to SEMP – Refer to Design Docuemnts

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	• Collecting, treating and reusing water generated in tunnelling operations, concrete batching and casting facility processes; • Using recycled water or treated water from onsite sources in the formulation of concrete; • Harvesting and reusing rainwater from roofs of temporary facilities; • Using water from recycled water networks; • Collecting, treating and reusing groundwater and stormwater; • Using water efficient construction methods and equipment; and • Providing designated sealed areas for equipment wash down.			
12.3.a	The on-airport Soil and Water CEMP and the off-airport Soil and Water Management Plan will include the following surface water and flooding mitigation measures as well as any relevant Conditions: i. Clean water will be diverted around disturbed site areas, stockpiles and contaminated areas; ii. Control measures will be installed downstream of works, stockpiles and other disturbed areas;	N/A	Built	Not Triggered

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	iii. Exposed surfaces will be minimised, and stabilised / revegetated as soon feasible and reasonable upon completion of construction; iv. Dangerous good and hazardous materials storage will be within bunded areas with a capacity of 110 per cent of the maximum single stored volume; v. Chemicals will be stored and handled in accordance with relevant Australian standards such as: • AS 1940-2004 The storage and handling of flammable and combustible liquids • AS/NZS 4452:1997 The storage and handling of toxic substances • AS/NZS 5026:2012 The storage and handling of Class 4 dangerous goods • AS/NZS 1547:2012 On-site domestic wastewater management vi. Spill kits will be provided at the batch plants, storage areas and main work sites; vii. A protocol will be developed and implemented to respond to and remedy leaks or spills. viii. A remedial action plan and unexpected finds protocol would be established to facilitate the quarantining, isolation			

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	and remediation of contamination identified throughout the construction programme. Any asbestos identified on site would be managed in accordance with applicable regulatory requirements.			
13.1 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; ii. Identify and control potential dust and air pollutant sources;	During the Works	Built	Table 6-1, SE 44 to SE 47
13.2 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.	During the works	Built	Section 7.6
13.2.c	The following compliance records will be kept by the Principal Contractor:			

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	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.	During the works During the works N/A	Built Built	Section 7.6 Section 7.6
14.1 a	The following waste objectives will apply to construction: i. Minimise waste throughout the project life-cycle; ii. Waste management strategies for off-airport works will be implemented in accordance with the Waste Avoidance and Resource Recovery Act 2001 management hierarchy as follows: • Avoidance of unnecessary resource consumption; • Resource recovery (including reuse, reprocessing, recycling and energy recovery); and • Disposal. iii. Consistent with the Western Sydney Airport Waste and Resource Construction Environmental Management Plan, waste management strategies for on-airport works will also be aligned with the NSW Waste Avoidance and Resource Recovery Strategy under the NSW Waste Avoidance and Resource Recovery Act 2001; and iv. For on-airport works, the Sydney Metro Western Sydney Airport Waste and Resources CEMP will	During the works	Built	Table 6-1, SE 34 to SE 37

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	detail all the waste management objectives and will be consistent with the WSA Waste and Resources CEMP including all appendices to the CEMP.			
14.1 b	Targets for the recovery, recycling or reuse of construction waste, and beneficial reuse of spoil will be provided by the Principal Contractor.	During the works	Built	Table 6-1, SE 37 Section 7.4
14.2 a	On-airport management of waste and resources will be achieved through the implementation of the SMWSA Waste and Resources CEMP and Principal Contractors will develop and implement a Waste Management Plan for all off-airport works. Both plans will include as a minimum: i. The waste management mitigation measures as detailed in the planning approval documentation; ii. The responsibilities of key project personnel with respect to the implementation of the plan; iii. Waste management monitoring requirements; iv. A procedure for the assessment, classification, management and disposal of waste in accordance with Waste Classification Guidelines; and v. Compliance record generation and management.	SMWSA Waste and Resources CEMP not applicable (works are not on-airport) Waste Management Plan to be developed prior to works for implementation throughout	Built	Not applicable to SEMP – Refer to HSE Management Plan
14.2 b	Principal Contractors will undertake the following waste monitoring as a minimum: vi. Weekly inspections will include checking on the waste storage facilities on site; and	During the works	Built	Table 6-1, SE 37 Section 7.4

Condition no.	Condition	Timing	Responsibility	Reference within this SEMP
	vii. All waste removed from the site will be appropriately tracked from 'cradle to grave' using waste tracking dockets.			
14.2 c	Principal Contractors will report all necessary waste and purchasing information to Sydney Metro as required for Sydney Metro to fulfil their WRAPP reporting requirements.	During the works	Built	Table 6-1, SE 37
14.2 d	Compliance records will be retained by the Principal Contractors in relation to waste management including records of inspections and waste dockets for all waste removed from the site.	During the works	Built	Table 6-1, SE 37

Table A-4 – SM-WSA Performance objectives relevant to this SEMP

Environmental Performance Objective Topic	Environmental Performance Objective	Reference within this SEMP
Supporting the provision of successful places -the project is integrated with and enhances the environment where it is located, including improved accessibility and connectivity for communities	The Applicable – Western Sydney Airport Design Guidelines and Design Quality Framework are implemented to deliver a rail corridor, stations and ancillary facilities that achieve the project vision and design objectives	Not applicable to SEMP - Refer to Design Report
	Design excellence is exhibited in the project to complement the anticipated character of the precincts in which the project is located	Not applicable to SEMP - Refer to Design Report
	Accessibility and connectivity between future communities is supported by the project through opportunities to integrate with key project components such as stations	Not applicable to SEMP - Refer to Design Report
Network connectivity, safety and efficiency of the transport system in the vicinity of the project are managed to minimise impacts The safety of transport system customers is maintained Impacts on network capacity and the level of service are effectively managed	Safe and efficient routes are provided for pedestrians, cyclists and road users at/near construction sites	Section 4.1
	Access to the existing St Marys Station is maintained while train services are operating	Section 3.3 – confirmation of site area
	Safe access to properties and businesses is maintained during construction, unless alternatives are agreed with property owners and businesses	Section 3.3 – confirmation of site area
	Heavy vehicles access the arterial network as soon as practicable on route to, and immediately after leaving, a construction site	Section 4.1
	The local community and relevant authorities are informed of transport, access and parking changes/impacts to minimise inconvenience to the public	Section 4.1
Construction noise and vibration (including airborne noise, groundborne noise and blasting) is effectively	Construction noise and vibration impacts on local communities (including airborne noise and ground-borne noise and vibration) are managed in accordance with the Construction Noise and Vibration Standard, the	Section 4.3

Environmental Performance Objective Topic	Environmental Performance Objective	Reference within this SEMP
managed to minimise adverse impacts on acoustic amenity Construction noise and vibration (including airborne noise, ground-borne noise and blasting) are effectively managed to minimise adverse impacts on the structural integrity of buildings and items including Aboriginal places and environmental heritage	Interim Construction Noise Guideline, and the Airports (Environment Protection) Regulations 1997	
	Structural damage to buildings, heritage items and public utilities and infrastructure, including the Warragamba to Prospect Water Supply Pipelines, from construction vibration to be avoided	Not triggered
The project design considers all feasible measures to avoid and minimise impacts on terrestrial and aquatic biodiversity	Minimise or where possible avoid impacts on threatened flora and fauna species, and ecological communities listed under the Biodiversity Conservation Act 2016 (NSW) and Environment Protection and Biodiversity Conservation Act 1999 (Cth)	Section 4.10
Offsets and/or supplementary measures are assured which are equivalent to any residual impacts of project construction and operation	Impacts on threatened ecological communities and threatened species are offset in accordance with the requirements of the NSW Biodiversity Assessment Method (OEH, 2017)	Section 4.10
The design, construction and operation of the project facilitates, to the greatest extent possible, the long term protection, conservation and management of the heritage significance of items of environmental heritage The design, construction and operation of the project avoids or minimises impacts, to the greatest extent possible, on the heritage significance of environmental heritage	Impacts on the State heritage significant St Marys Railway Station Group are avoided or minimised so that the overall heritage value of the item is maintained	Section 4.7
	Impacts on non-Aboriginal heritage items and archaeology are minimised or where possible avoided	Appendix H
The design, construction and operation of the project facilitates, to the greatest extent possible, the long term protection, conservation and management of the	The heritage significance of Aboriginal objects and places are protected, conserved and/or managed in order to ensure the project does not diminish the story	Not Triggered

Environmental Performance Objective Topic	Environmental Performance Objective	Reference within this SEMP
heritage significance of items of Aboriginal objects and places The design, construction and operation of the project avoids or minimises impacts, to the greatest extent possible, on the heritage significance of Aboriginal objects and places	and cultural understanding associated with the objects and places of Aboriginal people in New South Wales	
The project minimises adverse impacts on flooding characteristics Construction and operation of the project avoids or minimises the risk of, and adverse impacts from, infrastructure flooding, flooding hazards, or dam failure Long term impacts on surface water and groundwater hydrology (including drawdown, flow rates and volumes) are minimised The environmental values of nearby, connected and affected water sources, groundwater and dependent ecological systems including estuarine and marine water (if Applicable) are maintained (where values are achieved) or improved and maintained (where values are not achieved) Sustainable use of water resources The project is designed, constructed and operated to protect the NSW Water Quality Objectives where they are currently being achieved, and contribute towards achievement of the Water Quality Objectives over time where they are currently not being achieved, including downstream of the project to the extent of the project	Land and property beyond the construction footprint would not be impacted by construction for the 0.5 Exceedances per Year (EY) storm event	Not Triggered, the project is elevated off the existing ground level
	No material change to channel shape within the construction footprint for the 0.5 EY storm event for streams classified first order and higher	Not Triggered, the project is elevated off the existing ground level
	Water discharged from the project, including runoff from hardstand areas, surface and ground water storages would: • contribute towards achieving ANZECC guideline water quality trigger values for physical and chemical stressors for slightly disturbed ecosystems in lowland rivers in southeast NSW, or • meet any water quality criteria determined in consultation with the NSW Environment Protection Authority (off-airport) where an EPL is required or in consultation with Western Sydney Airport in accordance with the Airports (Environmental Protection) Regulations 1997 (on-airport)	Not Triggered, the project is elevated off the existing ground level
	Drainage from the project (including the stabling and maintenance facility, service facilities and stations) designed in accordance with local council requirements for managing urban stormwater quality and quantity	Not Triggered, the project is elevated off the existing ground level

Environmental Performance Objective Topic	Environmental Performance Objective	Reference within this SEMP
impact including estuarine and marine waters (if Applicable)		
The environmental values of land, including soils, subsoils and landforms, are protected	Contamination risks to human health and ecological receivers are minimised through effective management of existing contaminated land	Section 4.8
Risks arising from the disturbance and excavation of land and disposal of soil are minimised, including disturbance to acid sulfate soils and site contamination	Contaminated land and soil within the footprint of the project is remediated where required, to ensure the land is suitable for the intended future land use	Section 5.1.1
The project reduces the NSW Government's operating costs and ensures the effective and efficient use of resources Conservation of natural resources is maximised	Sustainability initiatives are incorporated into the planning, design and construction of the project	Section 4.5
Conservation of natural resources is maximised	A minimum 95 per cent recycling target is achieved for construction and demolition waste	Not applicable to SEMP – Refer to HSE Management Plan
	Products made from recycled content are prioritised	Not applicable to SEMP – Refer to HSE Management Plan
	The use of potable water for non-potable purposes is avoided if non-potable water is available	Not triggered
	The reuse of water is maximised, either on-site or off-site	Not applicable to SEMP – Refer to Design Documentation
Cumulative Impacts	Cumulative impacts are managed through coordination of construction activities and communication processes with nearby projects (Western Sydney International, M12 Motorway, The Northern Road, St Marys	Section 4.11

Environmental Performance Objective Topic	Environmental Performance Objective	Reference within this SEMP
	Intermodal and St Marys Commuter Car Park Expansion)	

Appendix B A22 Review of use of 19 Harris Street

Imogen Krause

From: Alex Gale <Alex.Gale@hbi.com.au>
Sent: Tuesday, 27 September 2022 10:11 AM
To: Andrew Smith
Cc: Cathy Lestrange; Ella Somerset
Subject: RE: SM-WSA: Review for ER - CoA22 MAF

Hi Andrew,

While I don't have an approval role for this, you are right in that the ER needs to assess minor ancillary facilities as per A22 b.

I can confirm that from the information supplied that this minor ancillary facility is compliant with A22 b, and from an ER perspective this may go ahead. Should the scope or works change this will trigger an additional review.

Alex Gale
Environmental Representative

✉: [redacted]

Healthy Buildings International Pty Ltd
Suite 2.06, Level 2, 29-31 Solent Circuit, Norwest NSW 2153
P: 02 9659 5433 | W: www.hbi.com.au

From: [redacted]
Sent: Monday, 26 September 2022 10:39 AM
[redacted]
Subject: SM-WSA: Review for ER - CoA22 MAF

Hi Alex,

I meant to send this to you last week, hence the blank faces in this mornings meeting!

Please find attached a review for minor ancillary facility works at 19 Harris Street which is consistent with SSI 10051 Condition of Approval A22 prepared by Cathy and the planning team.

The minor ancillary facility at 19 Harris Street comprises a temporary construction storage area for plant and prefabricated materials, as well as, a municipal waste bin. The minor ancillary facility will support the construction of the SSTOM project office (SPO). The proposed works as described in the review will be temporary and minor in nature and would have no additional impacts on the community and/or the environment.

An assessment against the criteria of CoA A22 is provided in Table 2 of the attached review. Criteria listed against item b of CoA A22 require assessment by the Environmental Representative.

Please could you assess the review against CoA A22 and provide determination via email.

Thanks,
Andrew.

Andrew Smith
Senior Manager Environment – Western Sydney Airport
Environment, Sustainability & Planning
Customer, Operations and Outcomes
Sydney Metro

M [redacted]

sydneymetro.info
Level 43, 680 George Street, Sydney NSW 2000
PO Box K659, Haymarket NSW 1240

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CoA A22 Minor Ancillary Facility Review

1. Proposed works and justification

This review is required to demonstrate consistency with CSSI condition of approval A22 which relates to use of minor ancillary facilities. A description of activities is provided in Table 1 and an assessment provided in Section 2.

Table 1 Description of proposed works

Description	Overview
Location of works	Works located within 19 Harris Street, St Marys. The indicative location of works is shown in Figure 1 below.
Scope of works	The scope of works includes: - Temporary construction storage/laydown area for plant and prefabrication materials - Municipal waste bin.
Justification for works	The temporary storage area is required to support the construction of the Stations, Systems, Trains, Operations and Maintenance (SSTOM) project office at St Marys for the SM-WSA project. The temporary storage area is located adjacent to the SM-WSA construction footprint.
Timeframe for works	Q1 2023
Work hours, workforce and equipment / machinery	No workers or equipment are required for construction of the storage area. Works are limited to the storage of plant, prefabricated building components and waste The placement and retrieval of plant and materials is expected to occur during standard construction hours but the storage area will be utilised during all hours.

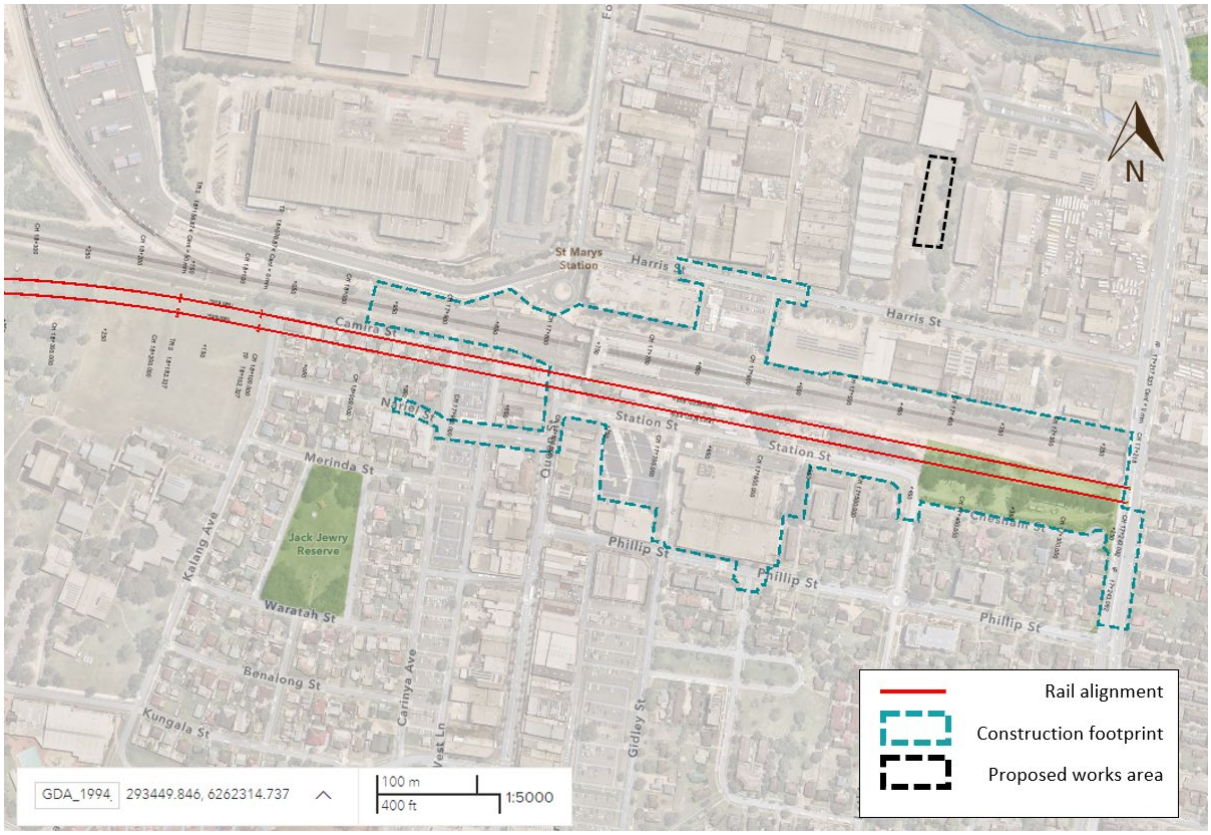


Figure 1 Indicative location of the proposed works area in relation to the approved construction footprint

2. Consistency with Conditions of Approval

The following table outlines whether the proposed works would be consistent with the relevant Conditions of Approval.

Table 2 Comparison of the proposed works with relevant elements of the Approved Project

Relevant elements of the Approved Project	Proposed Change
SSI CoA A22 – Lunch sheds, office sheds, portable toilet facilities and the like, can be established and used where they have been assessed in the documents listed in Condition A1 or satisfy the following criteria: (a) are located within or adjacent to the Construction Boundary; and (b) have been assessed by the ER to have - (i) minimal amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with the ICNG, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and (ii) minimal environmental impact with respect to waste management and flooding, and (iii) no impacts on biodiversity, soil and water, and Heritage items beyond those already approved under other terms of this approval.	**(a) Construction Boundary** The proposed works are located adjacent to the project construction footprint on the opposite side of Harris Street as shown in Figure 1. **(b)(i) Sensitive receptors** The proposed works area and surrounds are zoned as IN1- general industrial under the Penrith Local Environmental Plan 2010. The works are located directly adjacent to industrial receivers. The nearest residential receiver is located 200 metres (m) south of the proposed works on the opposite side of the St Marys railway station. **(b)(i) Noise** Noise impacts are limited to the retrieval and placement of plant and materials for construction of the SSTOM project office (SPO). These activities are expected to occur during standard construction hours. However, the storage area will be utilised during all hours of the day and night. No construction or noise generating activities are proposed to be undertaken Out of Hours and an OOHW approval would not be required. Noise impacts during standard hours will be localised and temporary in nature and are not expected to affect the nearby industrial receivers given the scale of surrounding industrial works. The ICNG external noise levels for industrial receivers of $L_{Aeq\ (15\ min)}$ 75 dB(A) would not be exceeded during retrieval and placement of the plant and materials. Impacts would continue to be managed in accordance with the Construction Noise and Vibration Standard. **(b)(i) Traffic and access** The proposed works may result in temporary traffic impacts caused by the movement of plant and prefabricated materials from the SPO construction site to 19 Harris Street. These impacts will be localised and minor and are not expected to require specific traffic control measures. Any impacts will be managed in accordance with the Construction Traffic Management Plan (CTMP). There are no anticipated long-term traffic impacts and access to properties would be maintained at all times. **(b)(i) Air Quality** No earthworks are proposed for the works. Air quality impacts are limited to emissions associated with the movement and storage of plant and prefabricated materials. The impacts will be localised and temporary in nature and are not expected to affect nearby industrial receivers. **(b)(i) Visual impacts** The proposed works are located in proximity to industrial receivers. Visual impacts to receivers will be limited to storage of plant and prefabricated materials and no additional lighting is required for the proposed works. The surrounding area is zoned as IN1- general industrial and use of the site as a

Relevant elements of the Approved Project	Proposed Change
	storage area will be consistent with the wider setting. Additionally, the proposed works site is located at the back of the Lot and is screened by vegetation and buildings. Any visual impacts will be minor and temporary in nature. **(b)(ii) Waste management** A municipal waste bin will be provided for general waste associated with packaging of prefabricated materials. Where possible the *Waste Avoidance and Resource Recovery Act 2001* management hierarchy will be implemented. Any waste generated by the proposed works will be disposed of in accordance with NSW *Environment Protection Authority (EPA) Waste Classification Guidelines.* **(b)(ii) Flooding** The proposed works are not mapped within a flood prone area and will be located approximately 200 m south of the nearest watercourse. The works will be located on existing hardstand areas with stormwater drainage infrastructure provided as necessary to manage water collected onsite. The proposed works would have minimal impact on flooding. **(b)(iii) Biodiversity** A search of the SEED Portal undertaken on 12 August 2022 and review of vegetation mapping (Biosis, 2018) collected for the SM-WSA EIS identified no mapped native vegetation within or adjacent to the proposed works. Miscellaneous ecosystem comprising urban native and exotic species are located within three metres of the boundary of the indicative area shown in Figure 1. No threatened species records are mapped within the vicinity of the proposed works. The storage area will be located on an existing hardstand area and will avoid any impacts on vegetation. As no vegetation removal, or trimming, is required the works are consistent with the direct impacts described in the EIS. The proposed works may cause minor increases in noise, and minimal reductions in air quality. This is consistent with the indirect impacts described in the EIS. **(b)(iii) Soil and Water** No earthworks or ground disturbance is proposed. Plant and prefabricated materials will be stored on an existing hardstand area and the nearest watercourse is located 200 m north of the proposed works. As no ground disturbance is required and the proposed works are not located in proximity to a watercourse, the works are consistent with impacts described in the EIS. **(b)(iii) Non-Aboriginal heritage** A search of the State Heritage Register (SHR), Section 170 Heritage and Conservation Registers and Penrith Local Environmental Plan on 12 September 2022 identified no non-Aboriginal heritage items in proximity to the proposed works. The nearest non-Aboriginal heritage item is located 100 m south of the proposed works. The item comprises the curtilage of the St Marys Railway Station a locally listed heritage item. No direct impacts are expected on non-Aboriginal heritage due to the distance between the works and the heritage item. As such, the proposed works are considered consistent with the direct impacts described in the EIS. The wider heritage setting may be impacted by the proposed works but impacts will be minor and temporary in nature. This

Relevant elements of the Approved Project	Proposed Change
	is consistent with the indirect impacts described in the EIS. **(b)(iii) Aboriginal Heritage** A search of the Aboriginal Heritage Information Management System (AHIMS) on 12 August 2022 identified no Aboriginal sites in the vicinity of the proposed works. As no ground disturbance is required and the proposed works are not located in proximity to an Aboriginal site, the works are consistent with the impacts described in the EIS. **Performance Outcomes** The works can be managed consistent with relevant performance outcomes (POs) as revised in the SM-WSA Submissions Report including: • Safe access to properties and businesses is maintained during construction, unless alternatives are agreed with property owners and businesses • Impacts would continue to be managed in accordance with the Construction Noise and Vibration Standard.
SSI CoA E110– Access to utilities and properties	Access to 19 Harris Street, including the warehouse located within the Lot, will be maintained for the duration of the works.
EPBC 2020/8687	Not considered further as the works would not impact protected matters or extend into or affect Commonwealth Land.

Appendix A – desktop searches

Desktop searches are attached in a separate pdf file.

12/09/2022

Alingment polyline

C-D-RAIL-IP

T-D-RAIL-IP

T-RAIL-ALGN-CNTR

T-TRAK-ALGN-CARD

1:1,750

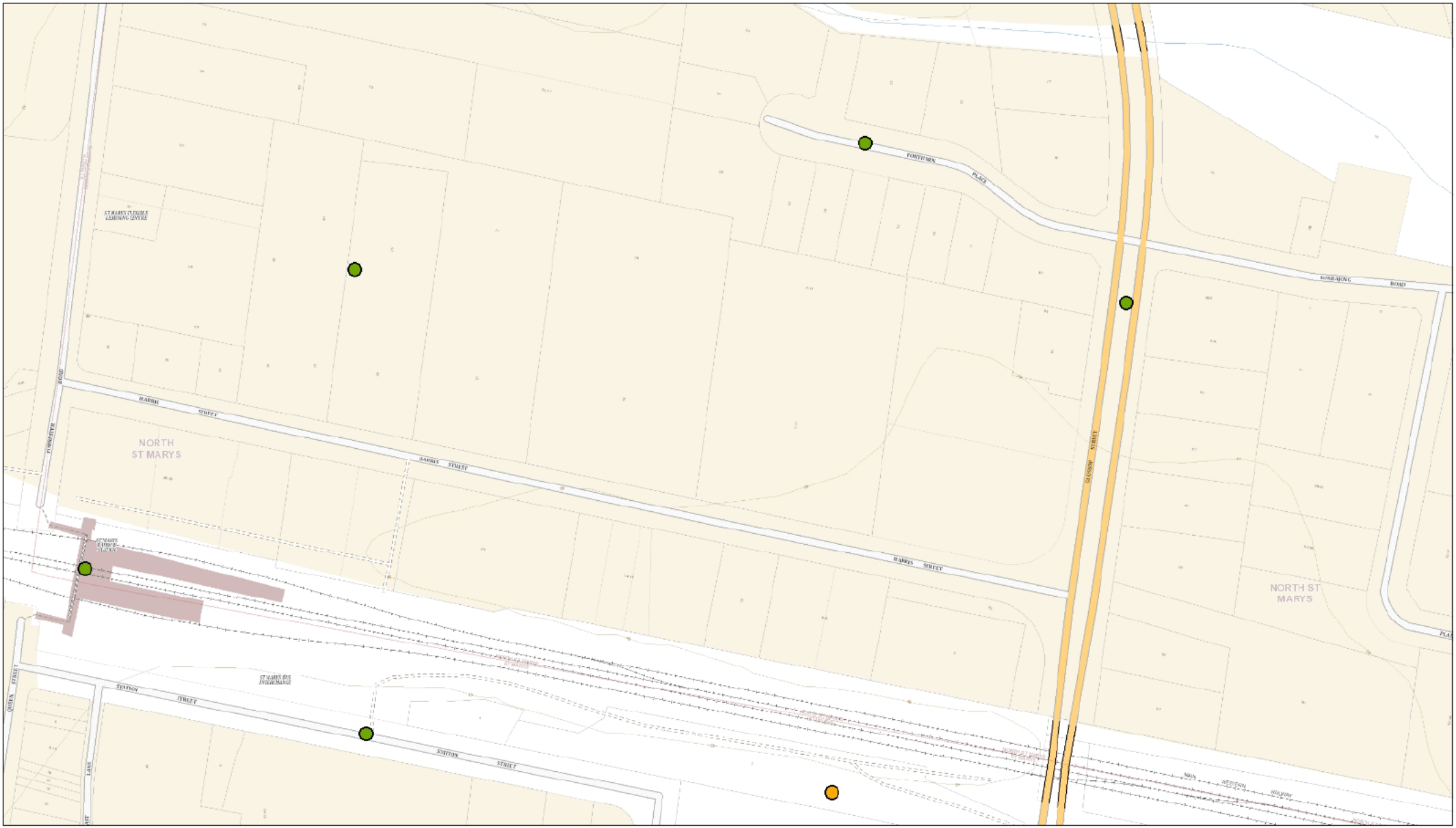
0 0.01 0.02 0.04 mi

0 0.02 0.04 0.07 km

Esri Community Maps Contributors, Spatial Services, Geoscape, Esri, HERE, Garmin, Foursquare, MET /NASA, USGS

SEED | Sharing and Enabling Environmental Data

SEED Map - Harris Street

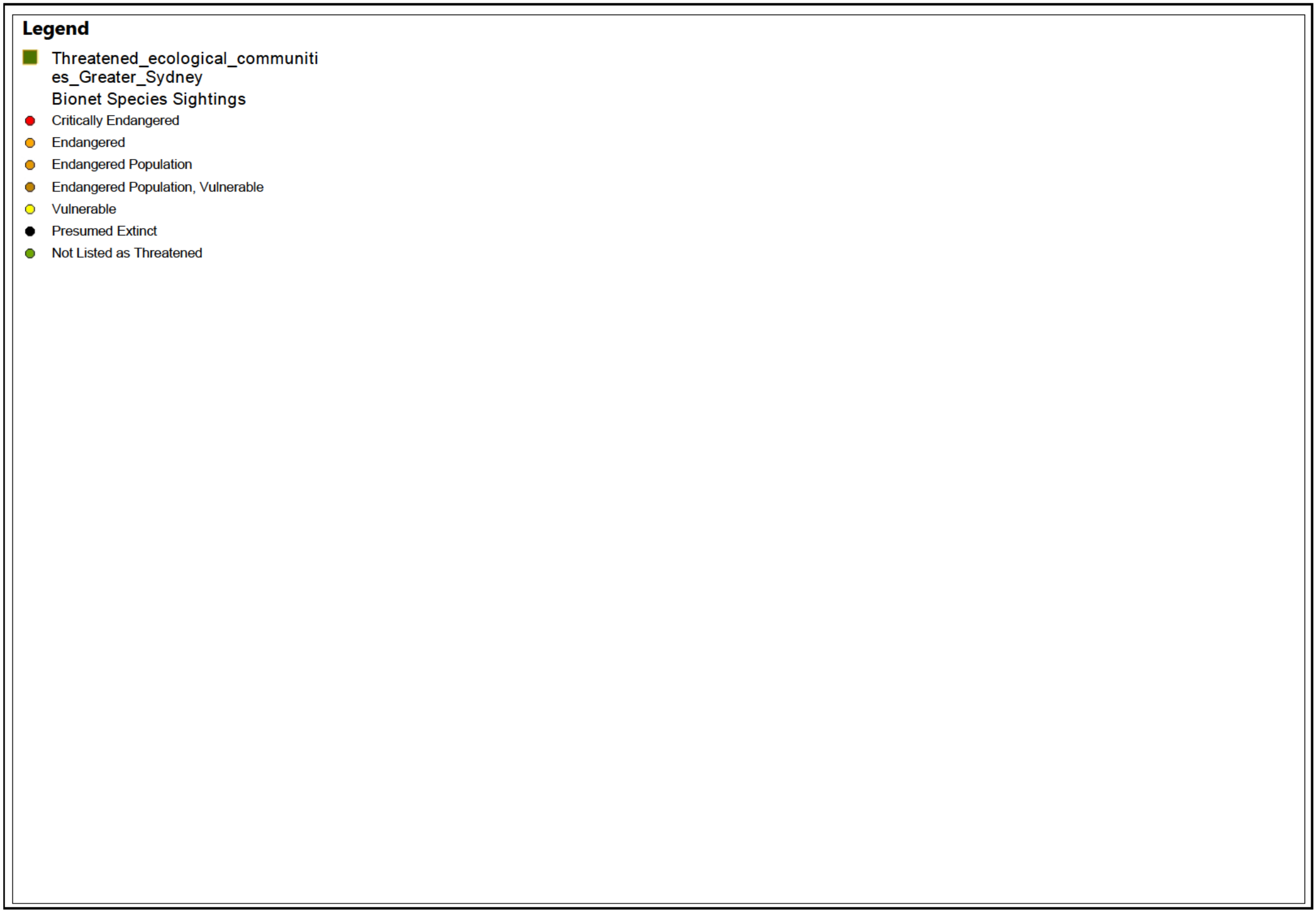


0.2 0 0.08 0.2 Kilometers

Scale 1: 3,349.85

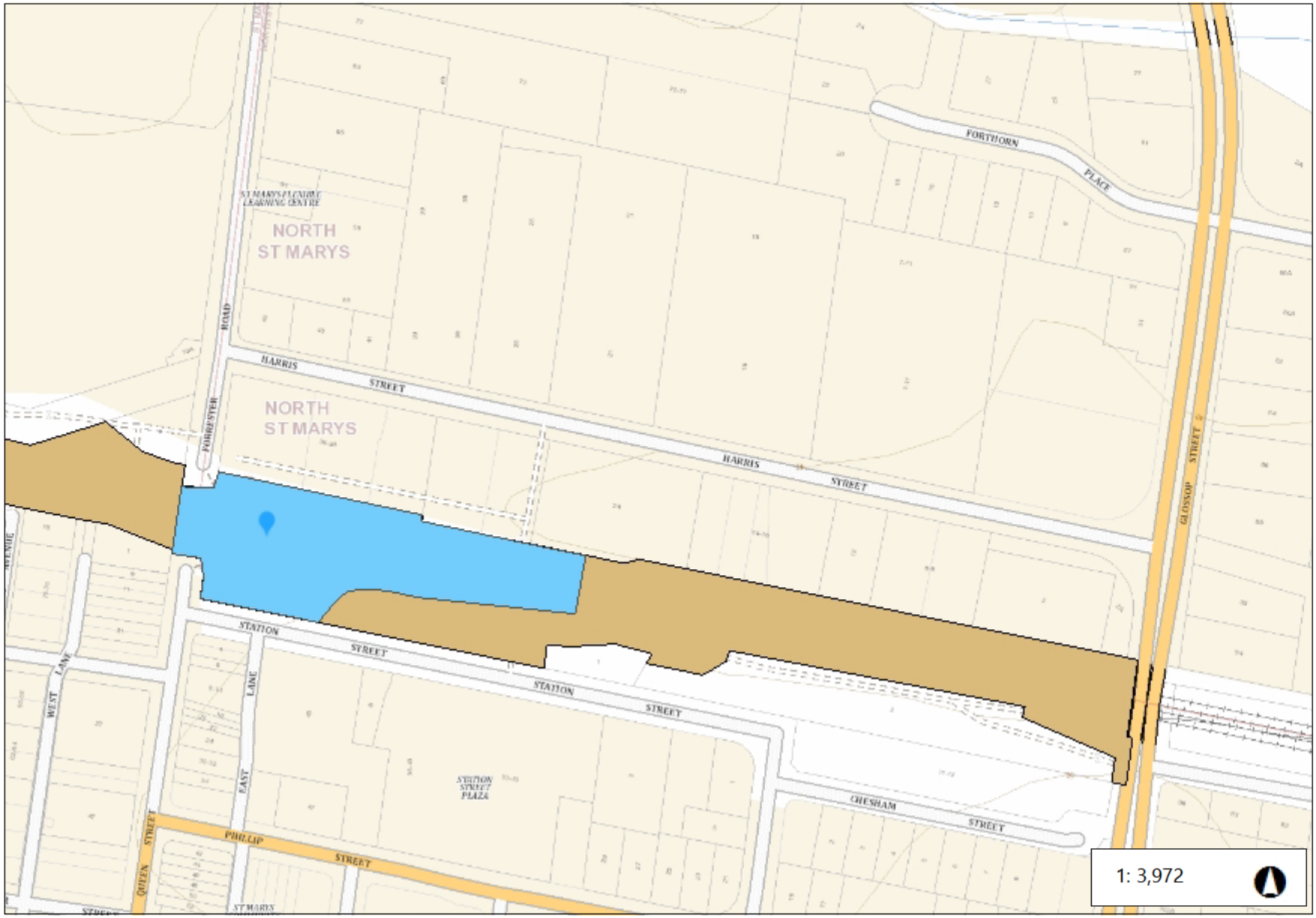
WGS_1984_Web_Mercator_Auxiliary_Sphere

Generated from SEED web map. Created 2:56 PM 12/9/2022


Legend
Threatened_ecological_communities_Greater_Sydney
Bionet Species Sightings
Critically Endangered
Endangered
Endangered Population
Endangered Population, Vulnerable
Vulnerable
Presumed Extinct
Not Listed as Threatened

NSW GOVERNMENT | Heritage NSW

NSW Heritage - Harris Street



1: 3,972

201.8 0 100.90 201.8 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere

This map is a user generated static output from the Heritage Management System and is for reference only. Information that appears on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Legend

- World Heritage Areas NSW
- SEPP
- SEPP
- State Heritage Register
- Interim Heritage Order
- Local Environmental Plan
  - Aboriginal Place
  - Conservation Area - General
  - Conservation Area - Landscape
  - Heritage Conservation Area
  - Item - Aboriginal
  - Item - Archaeological
  - Item - General
  - Item - Landscape
- World Heritage Site
- State Heritage Register
  - Cluster (label denotes number)
- Local Environmental Plan
  - Cluster (label denotes number)
- Aboriginal Place
  - Cluster (label denotes number)
- Interim Heritage Order
  - Cluster (label denotes number)

Notes

Notes

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : 7

Client Service ID : 716625

Imogen Krause

680 George Street
Sydney New South Wales 2000
Attention: Imogen Krause

Date: 12 September 2022

[redacted]

Dear Sir or Madam:

[redacted]

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.

[redacted]

A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	**Aboriginal sites are recorded in or near the above location.**
0	**Aboriginal places have been declared in or near the above location. ***

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

Level 6, 10 Valentine Ave, Parramatta 2150
Locked Bag 5020 Parramatta NSW 2124
Tel: (02) 9585 6345

ABN 34 945 244 274
Email: ahims@environment.nsw.gov.au
Web: www.heritage.nsw.gov.au

Appendix C Consultation correspondence

Comments - Document No: SMWSASPO-BLT-STM-EV-PLN-000001 Rev: C Sts : S3

Item	Date	Rev	Sts	Raised By	Company	Commented By	Company	Comments	Category	Closed-Out	Review Doc. No.	Document Ref	Deed Ref
02	10-11-22	A	S3	Lauren Vallejo	Penrith City Council	Lauren Vallejo	Penrith City Cc	When might the planning and approvals occur for the proposed materials delivery, staging and carparking at 19 Harris Street? Consideration is required for the permitted uses of that parcel of land. Add Response	Observation	☑	SMWSASPO-BLT-S	General	NA
02.01	29-11-22	C	S3	Alvin Yap	Sydney Metro	Alvin Yap	Sydney Metro	The approval for use of 19 Harris Street as a storage area has been assessed by the ER as a minor ancillary facility as per A22 b. Please refer to Appendix A on Page 80 for further details Add Response	Observation		SMWSASPO-BLT-S	Appendix A (page	N/A
03	10-11-22	A	S3	Lauren Vallejo	Penrith City Council	Lauren Vallejo	Penrith City Cc	A figure presented under Section 3 2 does not have a figure number or title. Add Response	Observation	☑	SMWSASPO-BLT-S	3.2	NA
04	10-11-22	A	S3	Lauren Vallejo	Penrith City Council	Lauren Vallejo	Penrith City Cc	4.1 Transport, states that partial or full occupancy of Harris Street, adjacent the site, is required. Please note that separate to this Environmental Management Plan further detail is requested for Council review and comment on this at the appropriate time and within the relevant documentation for the activity. Add Response	Observation	☑	SMWSASPO-BLT-S	4.1	NA
04.01	05-12-22	C	S3	Alvin Yap	Sydney Metro	Alvin Yap	Sydney Metro	SEMP (Rev C) has been updated to read "It is not expected that activity will require partial or full occupancy of Harris Street adjacent to the site, all works are planned to be completed within the construction boundary. Should there be a requirement for partial or full occupancy of Harris St Built will liaise directly with Penrith City Council for ROL's and the like." Add Response	Observation		SMWSASPO-BLT-S	4.1	N/A
05	10-11-22	A	S3	Lauren Vallejo	Penrith City Council	Lauren Vallejo	Penrith City Cc	4.3 Noise & Vibration. Consideration is required for the impact to commericla uses in close proximity to the site, particularly commercial premises located within the adjacent multi story commuter carpark. This is also relevant to section 6.2.1 Detailed Noise & Vibration Impact Statements. Add Response	Observation	☑	SMWSASPO-BLT-S	4.3 Noise & Vibrati	NA
06	10-11-22	A	S3	Lauren Vallejo	Penrith City Council	Lauren Vallejo	Penrith City Cc	6.3 Road Dilapidation Report. The road dilap report is to also be sent to Penrith City Council and not just Sydney Metro. Please also refer to Table 6.1 specifying dilap report to be submitted to Sydney Metro prior to site establishment. The table is to also nominate Penrith City Council. Add Response	Observation	☑	SMWSASPO-BLT-S	6.3 Road Dilapidat	NA
06.01	29-11-22	C	S3	Lauren Vallejo	Penrith City Council	Lauren Vallejo	Penrith City Cc	Whilst Section 6.3 has been updated, Table 6.1 stills needs to be amended for item ID SE1 which is to also nominate Penrith City Council for submission of the Road Dilapidation Report. Harris Street, or any other local road, is not to be travelled on by heavy vehicles until Council is satisfied with the Road Dilapidation Report. Add Response	Observation		SMWSASPO-BLT-S	Table 6.1	NA
06.01.01	05-12-22	C	S3	Alvin Yap	Sydney Metro	Alvin Yap	Sydney Metro	Sydney Metro agreed with Built that they would submit the dilapidation report to us, and we would then pass the report on to PCC. Table 6-1 will be updated to note this arrangement under SE1. Add Response	Observation		SMWSASPO-BLT-S	Table 6-1	N/A

Appendix D Built's Environment and Sustainability Policies

Environmental Management Policy

Our Aim

Built is committed to establishing and maintaining ours and our clients' work environments with priority given to minimising adverse environmental effects from our activities and fostering a culture of sustainable environmental management.

The Built environmental strategy is the ongoing development of a system based on AS/NZS ISO14001, legislation and applying the principles of best practice environmental management to our activities. Built is committed to objectives and individual programs by applying proactive approaches to environmental stewardship through:

- Identifying environmental activities, aspects and impacts and applying appropriate environmental actions
- Minimising the effects of our activities on the environment
- Preventing pollution
- Complying with applicable environmental laws and regulations, Codes of Practice and Guidelines leading to the development of appropriate monitoring, measurement and review activities
- Working cooperatively with our clients and responsible agencies in exercising environmental due diligence at all stages
- Conducting relevant environmental education and training to improve awareness, knowledge and skills
- Developing and implementing plans and procedures for the effective operation and management of our processes
- Meeting Performance Standards and Key Performance Indicators, and taking action to improve performance through regular and formal reviews
- Communicating with staff, clients and stakeholders on all areas on environmental performance

Built is committed to continual improvement in environmental management. This includes regular monitoring, assessment and review of all aspects of the system by both internal and external audits.

Brett Mason
Managing Director
1 August 2021

Built

Environmental Sustainability Policy

Our Aim

Built is committed to environmentally sustainable work practices and aspires to be recognised as a leading environmentally responsible contractor across all business operations Australia-wide.

Consistent with our Environmental Management Policy, we will seek to continually improve on environmental outcomes within the Built environment through the adoption of best practice environmental sustainability principles, including:

- Eliminating, or where this is not possible, minimising waste from our activities and recovering resources for reuse or recycling
- Minimising our consumption and use of water and natural resources
- Reduce our carbon emissions to as low as is possible, through the efficient use of electricity and fossil fuels
- Protecting land quality and biodiversity from negative impacts associated with our operations
- Working cooperatively with our clients to achieve their objectives for environmental sustainability
- Raise the level of awareness of our staff, employees and contractors through the provision of training, instruction and information on the requirements for and importance of the sustainable use of natural resources and energy efficiency
- Work cooperatively in a consultative manner with our clients, responsible agencies and other stakeholders in exercising environmental due diligence across all areas of our business operations, including openly communicating, listening and responding to concerns of those potentially affected by our project operations
- Promoting the benefits of sustainable building design through the participation in and delivery of Green Star, NABERS rated projects and other world leading sustainability rating tools

Brett Mason
Managing Director
1 August 2021

Appendix E Built's Draft Green Star Equivalency Pathway

Evidence Tracker

Hide Submission Guideline evidence requirements

	Credit	Minimum Expectation	Credit Achievement	Exceptional Performance	Total points available	Built Targets	Evidence (As Built) - Sydney Metro Equivalency	Status
Responsible					**17**			
1	Industry Development		1		1	1		**Credit Achievement**
	Green Star Accredited Professional		•				Letter of Appointment from client or head contractor confirming the appointment of an ESD Consultant / GSAP including the scope of works	
			•				Sample meeting minutes demonstrating input from ESD Consultant / GSAP	
			•				Letter from Client confirming that the ESD Consultant / GSAP has satisfactorily fulfiled their engagement responsibilities	
	Financial Transparency		•				Completed Financial Transparency disclosure template	
2	Responsible Construction	•	1		1	1		**Credit Achievement**
	Environmental Management System	•	•				Contractor ISO 14001 Certificate	
	Environmental Management Plan	•	•				Environmental Management Plan prepared for construction and confirmation of adherence to the EMP requirements detailed in subcontractor packs / induction	
	Construction and Demolition Waste	•	•				Sydney Metro Monthly Reporting - waste volumes	
		•	•				Dockets / statements from the waste contractor and processing facility	
	Sustainability Training	•	•				Evidence of training materials and register of attendance	
			•				Demolition or Site Drawings indicating structures on site at time of purchase, extent of demolition and retained structure	
			•				Sydney Metro Monthly Reporting - waste volumes	
3	Verification and Handover	•	1		1	0		**Minimum Expectation**
	Metering and Monitoring	•	•				Drawings showing the location of all energy and water meters in the project and the associated energy and water uses	
		•	•				Letter of confirmation from the contractor/metering provider/manager confirming installation	
		•	•				Commissioning reports demonstrating correct operation of meter reading, reporting and alarm generation	
		•	•				Monitoring Strategy document demonstrating that all significant water and energy sources and uses are covered in terms of both usage and accuracy verification	
		•	•				Accuracy certificates for meters	
	Commissioning and Tuning	•	•				Service and Maintainability Report, where the service and maintainability review is summarised	
		•	•				Extract(s) from the Commissioning Report demonstrating that comprehensive pre-commissioning activities and commissioning activities have been performed	
		•	•				Building Tuning Commitment or contract demonstrating that there is a requirement for a building tuning process	
		•	•				Building airtightness testing report detailing of test methodology, air flow rates, details of airtightness considerations from schematic design through to construction	
		•	•				Signed confirmation from the testing practitioner and main contractor that the results have been sighted	
	Building Information	•	•				Owner's project requirements document, or an equivalent document, defining the nominated building systems	
		•	•				Operations and maintenance information	
		•	•				Building logbook	
		•	•				Building user information	
	Soft Landings Approach		•				Evidence of implementation of BSRIA framework.	
	Idependent Commissioning Agent		•				CV of the independent Commissioning Agent detailing the qualifications and experience relevant to the project	
			•				Letter from building owner confirming the appointment of an ICA	
4	Responsible Resource Management	•			0	0		**Minimum Expectation**
		•					Site Plan and/or architectural plans highlighting the location of relevant waste facility areas,	
		•					Operational Waste Management Plan	
5	Responsible Procurement		1		1	1		**Credit Achievement**
			•				Extract from supply chain risk and opportunity assessment	
			•				Responsible procurement plan	
			•				Extracts from tender documents demonstrating principles and action plan was incorporated	
			•				Meeting minutes or governance process documents	
			•				Impact and data reporting undertaken through the construction process in partnership with relevant trades and contractors	
6	Responsible Structure		3	2	5	3		**Credit Achievement**
			•	•			Receipts confirming purchase of stated products	
			•	•			Evidence that claimed products with required RPV constitute required cost of all structural components	
7	Responsible Envelope		2	2	4	0		**Credit Achievement**
			•	•			Receipts confirming purchase of stated products	
			•	•			Evidence that claimed products with required RPV constitute required cost of all structural components	
8	Responsible Systems		1	1	2	0		**Credit Achievement**
			•	•			Receipts confirming purchase of stated products	
			•	•			Evidence that claimed products with required RPV constitute required cost of all structural components	
9	Responsible Finishes		1	1	2	1		**Credit Achievement**
			•	•			Receipts confirming purchase of stated products	
			•	•			Evidence that claimed products with required RPV constitute required cost of all structural components	
Healthy					**14**			

10	Clean Air	•	2		2	2		Credit Achievement
		•	•				Mechanical drawings for each ventilated space	
		•	•				For naturally ventilated buildings, provide drawings of openings and opening schedule.	
		•	•				Extract from the ventilation system specification for each system	
		•	•				Extracts from the Environmental Management Plan that specify vent lation cleaning	
		•	•				Extract from the Commissioning Report demonstrating that the HVAC and CO2 monitoring systems are operating as intended.	
11	Light Quality	•	2	2	4	2		Credit Achievement
		•	•	•			Day light mode ling report or manual calculations	
		•	•	•			Lighting Drawings	
		•	•	•			Architectural Drawings	
		•	•	•			Lighting Speci lications/Schedules	
		•	•	•			Product Data Sheets	
							Isolux Plot Drawings	
12	Acoustic Comfort	•	2		2	2		Credit Achievement
		•	•				Acoustic Comfort strategy.	
			•				Detailed Drawings detai ling the acoustic design features relevant to this cred t.	
			•				Report by a qualified acoustics consu tant con irming credit compliance.	
			•				Extracts from the commissioning report detailing relevant measured noise levels and target noise levels.	
13	Exposure to Toxins	•	2		2	0		Minimum Expectation
		•	•				Extracts from contract specifications for adhesives and sealants	
		•	•				Spec fications that demonstrate emission levels or formaldehyde contents	
		•	•				Safety Data Sheets that demonstrate the compliant emission levels or formaldehyde content	
		•	•				Product VOC test certificates that demonstrate emission levels or formaldehyde contents	
		•	•				Product certificates that demonstrate certification under a recognised product certification scheme or recognised standard	
		•	•				Invoices and proof of purchase to demonstrate costs of compliant materials	
		•	•				Bil l of Quantities from Quantity Surveyor or Cost planner, demonstrating material costs	
		•	•				Hazardous materials survey	
			•				On-site VOC test results	
			•				As bui t drawings showing the location of the test samples	

14	Amenity and Comfort		2		2	0		Not Targeted
			•				As build drawings showing the location and size of the rooms	
			•				Evidence that all necessary equipment for the room type has been provided	
			•				Evidence that the rooms comply with the Light Quality and Acoustic Comfort credits	
			•				Evidence that the room complies with the 'Equal access to the building' criterion of the Design for Inclusion credit	
15	Connection to Nature		1	1	2	0		Not Targeted
			•	•			Drawings showing access to views and/or line-of-site showing that no obstructions exist	
			•	•			As build drawings showing the location of plants in the space	
			•	•			Extracts from the ongoing management plan for plants	
			•	•			Narrative of the five nature-inspired design features including design principles setting the project's ambition for connection to nature, along with evidence	
			•	•			Evidence of how occupants can interact with nature (e.g., site plans showing green roofs)	
Resilient					**8**			
16	Climate Change Resilience	•	1		1	1		Minimum Expectation
		•	•				Sydney Metro Climate Change Risk Framework	
			•				Details of the adaptation responses	
		•	•				Evidence the assessment was communicated to design leads	
17	Operations Resilience		2		2	0		Not Targeted
			•				Operations resilience assessment	
			•				Details of how shocks and stresses have been assessed	
			•				Risk assessment criteria, including the likelihood and consequence tables, and any assumptions significant in the development of the assessment	
			•				Details of the adaptation responses	
			•				Assessment of the building's survivability during a blackout with design responses	
18	Community Resilience		1		1	0		Not Targeted
			•				Community resilience plan	
			•				Overview of the community capacity building activity	
19	Heat Resilience		1		1	1		Credit Achievement
			•				Site Plan highlighting all relevant areas as referenced within the area schedule	
			•				Area Schedule listing the areas of each of the relevant site elements and where relevant, the SRI values and referencing plan drawings for the site	
			•				Supplier Documentation material data sheet for compliant roofing and hardscape materials	
20	Grid Resilience		3		3	0		Not Targeted
	Active Generation and Storage Systems		•				Energy model demonstrating the buildings peak energy demand	
			•				Description of active generation or storage systems or technologies	
			•				Overview of the buildings BMS	
			•				Evidence of approval with utility provider or evidence that no more that 30% of generated electricity is exported	
	Demand Response		•				Description of the plan or infrastructure to manage demand response	
			•				Evidence that the system has been implemented into building commissioning processes and tested	
	Passive Design Solutions		•				Energy model showing the building's façade demonstrate a 10% improvement over reference buildings	
			•				Mechanism drawings or other showing how the building is mostly naturally ventilated	
			•				As built drawings showing the occupiable spaces	
Positive					**30**			
21	Upfront Carbon Emissions	•	3	3	6	3		Credit Achievement
		•	•	•			Sydney Metro Carbon Tool	

22	Energy Use	•	3	3	6	3		Credit Achievement
		•	•	•			Energy modelling report	
		•	•	•			Extracts from specifications detailing systems included in the energy model	
		•	•	•			Extracts from commissioning reports confirming as built systems	
		•	•	•			As built drawings of the façade	
		•	•	•			Evidence of renewable energy generation on-site (e.g., contracts, as built drawings)	
		•	•	•			Schedule identifying all on-site storage systems installed in the building	
23	Energy Source	•	3	3	6	6		Exceptional Performance
			•	•			Signed PPA including extracts on the length of contract	
			•	•			Evidence that the PPA or on-site generation covers 100% of electricity or energy	
			•	•			Public commitment to the Global Commitment for Net Zero Carbon Buildings managed by WorldGBC	
24	Other Carbon Emissions		2	2	4	2		Credit Achievement
			•	•			Confirmation that refrigerants have been eliminated from the building along with supporting documentation (e.g. mechanical as built drawings)	
			•	•			Calculations showing the total refrigerant charge to be offset	
				•			Overview of the remaining carbon emissions and evidence of their offset	
25	Water Use	•	3	3	3	3		Credit Achievement
		•	•	•			WELS certificates	
		•	•	•			Manufacturer's data	
		•	•	•			Drawing(s) for each typical floor showing isolation valves for floor-by-floor testing of the fire sprinkler system and drawings of the water storage and re-use system(s)	
		•	•	•			Drawing(s) clearly showing the location of all heat rejection equipment installed on the project	
		•	•	•			Drawings showing the landscape design and the irrigation system, listing the name, location, and plant species zone as it appears in the calculator	
		•	•	•			Manufacturer's information showing that the application efficiency for the landscape irrigation system	
		•	•	•			Manufacturer's information including backwash volume and frequency of filter cleaning	
		•	•	•			Drawing(s) of process cooling water usage loops	
			•	•			Drawings and specifications of grey water infrastructure	
26	Life Cycle Impacts		2		2	0		Not Targeted
			•				LCA Report	
			•				Peer Review Statement	
			•				LCA practitioner competencies statement or LCACP certificate for practitioner and peer reviewer	
			•				Reference building documentation	
			•				Proposed building documentation	
	Places				8			

27	Movement and Place	•	3		3	3		Minimum Expectation
		•	•				Transport Drawings showing the provision and location of changing facilities	
		•	•				As built drawings showing the number and size of showers, and of lockers	
			•				Site drawings or as built drawings showing how the changing facilities are safe and protected	
			•				Sustainable transport Plan including a site-specific transport assessment	
			•				Site plans showing how pedestrian access has been prioritised	
			•				As built drawings showing the number and location of bicycle parking facilities	
			•				Manual calculations showing proximity to amenities	
28	Enjoyable Places		2		2	0		Not Targeted
			•				Site plans showing the size of public or communal spaces	
			•				An overview of how the public or communal spaces comply with the requirements (e.g., flexible)	
			•				A narrative of how the spaces have been designed for enjoyment	
29	Contribution to Place		2		2	0		Not Targeted
	Urban Context Report		•				Extracts from the urban context analysis, or various relevant reports that address requirements from this credit	
			•				As built or site drawings showing how the building responds to the urban context report	
			•				Architectural drawings showing the public realm interface design	
	Independent Design Review		•				Evidence to demonstrate that a design review process has been undertaken	
30	Culture, Heritage and Identity		1		1	0		Not Targeted
	Community Led Design Response		•				Culture, Heritage, and Identity Report outlining key findings of the local analysis and how community engagement activities influenced the design	
			•				As built drawings, site drawings, architectural drawings showing how the culture, heritage, and identity is incorporated into the building's designs.	
	Independent Design Review		•				Evidence to demonstrate that a design review process has been undertaken	
	People				**9**			
31	Inclusive Construction Practices	•	1		1	1		Credit Achievement
	On-site Facilities, Policies, and Training	•	•				Description of the types of PPE available to construction workers	
		•	•				Evidence of purchase of appropriate PPE	
		•	•				Extracts from relevant policies that address discriminating, racism, and bullying	
		•	•				Drawings of gender inclusive facilities	
		•	•				Evidence of lead team diversity	
	Needs Analysis		•				Needs Analysis report outlining engagement process and outcomes for training	
	Physical and Mental Health Programs		•				Extracts of evidence detailing the programs and policies implemented to promote health and wellbeing on site	
			•				Evidence detailing the process to manage training, and track workers trained.	
			•				Extracts of training such as screenshots, presentation, or similar, showing the information provided as part of training.	
	Evaluating the Program's Effectiveness		•				Evaluation report of the effectiveness of the training	
32	Indigenous Inclusion		2		2	0		Not Targeted
	Reconciliation Action Plan		•				Extract from the Reconciliation Australia website demonstrating that the project's RAP is endorsed by Reconciliation Australia	
			•				Extracts from the organisation's Annual Report or website (or similar) demonstrating that the RAP is publicly reported upon	
			•				Reconciliation Action Plan Report (or similar) on the outcomes from the project's RAP	
			•				Evidence that a key member of the project team is also on the RAP working group	
			•				Outcomes document linking the project to an organisational RAP	
	Inclusion of Indigenous Design		•				Extract from indigenous engagement strategy	
			•				Evidence of Aboriginal and Torres Strait Islander engagement from concept design throughout the project's life cycle	
			•				As built drawings or photographic evidence of incorporated designs	
			•				Evidence of information being made available to public (e.g., website)	
			•				Comparison against the four principles from the Australian Indigenous Design Charter	
33	Procurement and Workforce Inclusion		2	1	3	0		Not Targeted
			•	•			Social Procurement Plan	
			•	•			Evidence of workforce targets in main contracts and sub-contracts	
			•	•			Evidence of social procurement targets in main contracts and sub-contracts	
			•	•			Evidence that enterprises are independently certified by third party organisation	
34	Design for Inclusion		2	1	3	2		Credit Achievement
	Inclusive Design		•	•			As build drawings showing equal access to the building	
			•	•			Evidence of diverse wayfinding, including photographs	
			•	•			As build drawings showing inclusive spaces.	

	Needs Analysis			•			Extract from consultation plan with disability community	
				•			Evidence, through as built drawings or photographs, of how the outcomes of the consultation have been incorporated into the buildings design	
				•			Analysis of the building's designs against the Design for Dignity Guidelines Principles for Beyond Compliance Accessibility in Urban Regeneration	
	Nature				**14**			
35	Impacts to Nature	•	2		**2**	**2**		**Minimum Expectation**
		•	•				Extracts from the Development Application	
		•	•				Zoning Plans	
			•				Ecological assessment report	
			•				Narrative from Ecologist	
		•	•				As built drawings	
	Managing Light Pollution Impacts	•	•				As Built drawings indicating the location of all external luminaires and showing the aiming point and mounting orientation of all external luminaires	
		•	•				Luminaire schedule for all external lighting, nominating the type, lighting distribution and quantity of each luminaire and including the relevant photometric data such as ULOR	
		•	•				Calculation Plots for all external lighting, showing that all grid points on the calculation plane return compliant Lux values	
		•	•				Excerpt from lighting control system	
		•	•				Evidence as per Waterway Protection credit	
36	Biodiversity Enhancement		2	2	**4**	**0**		**Not Targeted**
	Landscape Area		•	•			Site Plans marked up with landscaping	
			•	•			Schedules of plant species numbers and diversity	
			•	•			Aerial Site Photographs marked up with landscaping	
	Diversity of Species		•	•			Schedules of plant species numbers and diversity	
			•	•			Evidence of plant diversity (species, genus, and family)	
37	Nature Connectivity		2		**2**	**0**		**Not Targeted**
			•				Site Plans marked up with landscaping, showing it is contiguous	
			•				Aerial Site Photographs marked up with landscaping, showing it is contiguous	
			•				Report on the types of infrastructure implemented	
			•				A reporting establishing the local species identified that a habitat would need to be provided for	
			•				Report on how designs support targeted wildlife species	
			•				Drawings detailing that habitat design	
38	Nature Stewardship		2		**2**	**0**		**Not Targeted**
			•				Offsite Restoration Management Plan	
			•				Evidence of site purchase	
			•				Evidence of formal partnership	
			•				Overview of restoration activities	
			•				Evidence of funding provisions	
			•				Evidence of project specific additionality	
39	Waterway Protection		2	2	**4**	**2**		**Credit Achievement**
	Stormwater Volume		•	•			Calculation/Modelling Report by a suitably qualified professional.	
			•	•			Civil and Landscape drawings showing the stormwater collection, storage and treatment facilities and detailing their functional elements	
			•	•			Hydraulics drawings showing all the capture, storage, re-use piping and discharge route	
			•	•			Site plans showing the total areas of uncovered areas where vehicles are likely to transit and/or park (e.g. roads loading docks refuelling bays and car parking etc)	
	Pollution Reduction Targets		•	•			Civil/Hydraulics/Landscape drawings showing the stormwater collection, storage, infiltration, and treatment facilities and detailing their functional elements	
			•	•			Independently verified performance certification for each manufactured stormwater treatment device proving its ability to achieve the pollution reduction targets.	
	Leadership				**0**			
40	Market Transformation				**0**		To be proposed by Contractor and agreed by Sydney Metro	
41	Leadership Challenges				**0**		To be proposed by Contractor and agreed by Sydney Metro	

Appendix F Sydney Metro Incident Procedure

Environmental Incident and Non-compliance Reporting Procedure

SM-17-00000096

Metro Body of Knowledge (MBoK)

Applicable to:	Sydney Metro
Document Owner:	Manager, Environment
System Owner:	Executive Director, Safety, Sustainability & Environment
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1. Purpose and scope

This procedure documents the process to be used when classifying and reporting Environmental Events.

This procedure applies to Sydney Metro and any contractor Sydney Metro engages to carry out works. Principal Contractors must ensure their processes for managing Environmental Events is consistent with this document. The requirement for consistency is documented in the Construction Environmental Management Framework (Section 3.3(f)) and shall be allocated as a contractual requirement to each delivery partner.

2. Introduction

Sydney Metro is committed to minimising risks to the environment, the rapid identification and rectification of breaches to Environmental Requirements and efficient and effective responses to Environmental Incidents that grows our ability to minimise harm and prevent future re-occurrences.

This procedure defines an approach to classifying Environmental Issues, Incidents and Non-compliances and establishes the immediate, interim and long term actions that are taken in response to Environmental Events.

3. Definitions

All terminology in this Procedure is taken to mean the generally accepted or dictionary definition with the following exceptions:

Term	Definition
Environment	means components of the earth, including: a) land, air and water, and b) any layer of the atmosphere, and c) any organic or inorganic matter and any living organism, and d) human-made or modified structures and areas, and includes interacting natural ecosystems that include components referred to in (a)-(c).
Environmental Event	An occurrence that identifies actual or potential environmental impacts or non-compliances. Events cans include conversations, inspections, incidents, or failures of process.
Environmental Harm	Includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution.
Environmental Incident	An occurrence or set of circumstances, as a consequence of which pollution (air, water, noise, and land) or an adverse environmental impact has occurred or is likely to have occurred.
Environmental Issue	An occurrence or set of circumstances where Environmental Harm or Non-compliance could occur if not rectified.
Environmental Non-compliance	A breach of an Environmental Requirement originating from Planning Approvals, Environment Protection Licenses, lease agreements, and other requirements documented in environmental management plans.

Term	Definition
Material Harm to the Environment	harm to the environment is material if: a) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or b) 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 c) 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. It does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.

Terms and jargon specific to this procedure are defined within SM-17-00000203 Sydney Metro Glossary.

4. Accountabilities

The Executive Director, Safety, Sustainability & Environment is accountable for this Procedure. Accountability includes authorising the document, monitoring its effectiveness and performing a formal document review.

Direct Reports to the Chief Executive are accountable for ensuring the requirements of this document are implemented within their area of responsibility.

The Direct Reports to the Chief Executive who are accountable for specific projects/programs are accountable for ensuring associated contractors comply with the requirements of this document if specified in the relevant contracts.

5. Environmental Events

Environmental surveillance data is relied upon to inform Sydney Metro of performance trends, to provide assurance that legislative requirements are being met and indicate where surveillance activities should be directed. In order to rely upon environmental data for this purpose there needs to be a high degree of consistency in the manner by which it is collected and interpreted. Due to the need for consistency, any incident/Non-compliance procedure produced by a delivery partner to Sydney Metro is required to be consistent with the requirements of this document.

The concept of Environmental Events forms a common starting point for understanding what types of occurrences should be managed and reported as Incidents and what should be reported as Non-compliances or Issues. When an Environmental Event occurs a series of questions can be asked to consistently determine what type of event it is. Commonly, Environmental Events lead to three different processes:

1. Reporting of an Environmental Incident;
2. Reporting of an Environmental Non-compliance; or
3. Reporting of an Environmental Issue.

Incidents and Non-compliances are recorded using SM-17-00000105 Environmental Incident and Non-compliance Notification Report Form and Environmental Issues are recorded through environmental inspection reports using SM-17-00000107 Environmental Inspection Report Template. These paper based records are subsequently entered into the Sydney Metro Compliance Register (Section 6.7) which is used to disseminate the data and facilities reporting internally and externally. Note where a Principal Contractor has submitted alternative processes and these have been approved by Sydney Metro they may also be used.

The figure below shows the process by which Environmental Events are classified (Figure 1).

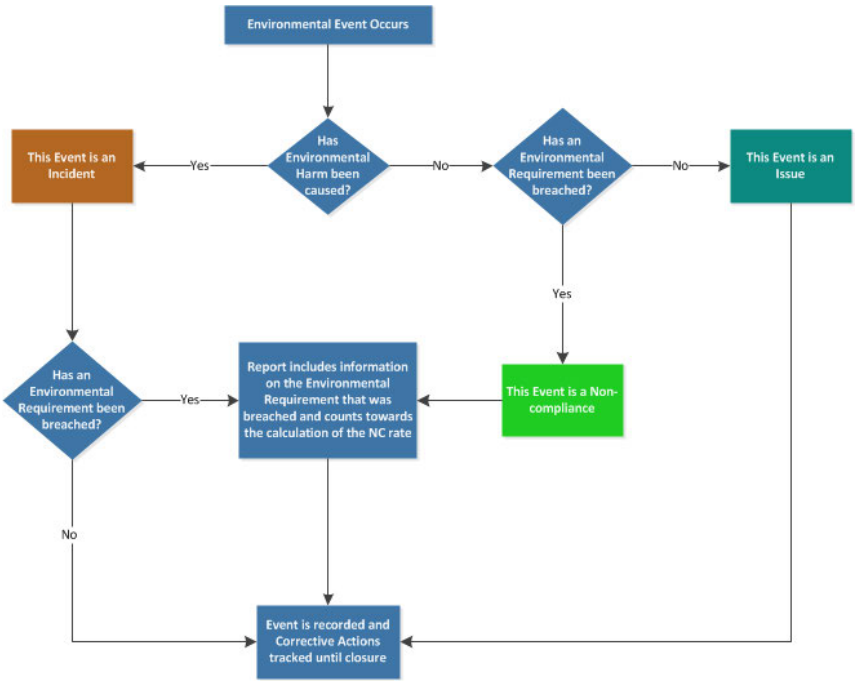


Figure 1: Environmental Event Classification Process

Where Environmental Harm has been caused the event will always be classified as an Environmental Incident regardless of whether one or more Environmental Requirements have been breached. Only when an event occurs without harm being caused to the environment will it be classified as a Non-compliance or Issue. It should be noted that the Incident management process still captures any breaches of Environmental Requirements and these incidents contribute towards the calculation of the NC Rate (Section 7.1).

This flowchart above is intended to be a guide and there may be situations where it is unclear exactly how an Environmental Event should be classified. In these situations a judgement call should be made in consultation with your Manager.

5.1. Worked Example – Classifying Environmental Events

This Section provides a fictitious example of Environmental Events which fall into each of the three different categories. The situations outlined below are provided to explain how event classifications are made. The background for these worked examples is as follows:

Sydney Metro is carrying out works in a newly established site and substantial earthworks are occurring to construct piers for an elevated viaduct. A nearby creek contains a variety of important fish species and the local community are known to use this creek for recreational fishing. The Environmental Impact Statement identified the creek as being at risk of increased sedimentation from dirty water run-off and the Conditions of Approval include a requirement to have a Progressive Erosion and Sediment Control Plan in place. This plan has been produced and indicates that sediment fences must be in place at specific locations to capture dirty water run-off. Regular daily inspections of the sediment controls are carried out by the contractor's Environment Manager and an Independent Environmental Representative has commenced a monthly inspection on this site at 7 am on Thursday morning.

5.1.1. Soil and Water Issue

The Environmental Representative notices a sediment fence has been knocked over in one of the areas indicated as requiring fencing on the ERSED plan. It appears to have occurred recently and there is no record of rainfall in the last few days. During the course of the inspection all other ERSED controls appeared to be in good condition and erected in accordance with the requirements of the Blue Book. In this example no harm has yet been caused and no environmental requirement has been breached so the event is classified as an Environmental Issue which is raised on the inspection report with an action to reinstall the fence.

5.1.2. Soil and Water Non-compliance

Alternatively, the Environmental Representative might have noticed many sediment fences had been knocked down and in some areas an absence of sediment fences where the plan indicates they are required. Despite there being no rain in recent days the Environmental Representative concludes that the requirements of the plan are not being followed and have been breached. The event is raised as non-compliance and actions are set in place to re-enforce the requirements of the ERSED plan for that sites workforce as well as the immediate reinstatement of controls.

5.1.3. Soil and Water Incident

Finally, in a third scenario the Environmental Representative notices many sediment fences are down and some are absent where required by the plan. However, significant rainfall has occurred in recent days and the Environmental Representative determines that it is likely dirty water has escaped through the area into the nearby creek potentially causing harm to the fish population. This event is classified as an Incident by the inspector and immediate notification is undertaken. Similar controls are implemented as described above.

5.2. Notifiable Events

There are a number of Acts and regulations that include a specific requirement to notify a Regulatory Authority. When an Environmental Event triggers one of these notification requirements we then also refer to that event as a Notifiable Event (Table 1).

The Principal Contractor's Environment Manager must determine whether an event is notifiable, and may rely upon advice from Sydney Metro if it is provided.

Table 1: Examples of Notifiable Events

Event type	Legislation		Trigger for Notification
Pollution Incident[1]	POEO Act 1997	Part 5.7	Where Material Harm has occurred contact the EPA Pollution Line as soon as practicable
	POEO (General) Regulation 2009	Section 101	
Land contamination	Contaminated Land Management Act 1997	Section 60(1)	As soon as practicable, after becoming aware of contamination that exceeds the relevant investigation levels in the National Environment Protection Measure, where a person has or will be exposed to the contamination
Discovery of an Aboriginal relic	National Parks & Wildlife Act 1974	Section 89A	Director General of EPA in writing within a reasonable time after becoming aware. Note this is not required for Projects approved under Part 5.2 of the Environmental Planning and Assessment Act (see section 115ZG). Notification and reporting is addressed in the relevant Infrastructure Approval
Discover Aboriginal Remains	Commonwealth Aboriginal & Torres Strait Islanders Heritage Protection Act 1984	Section 20	Commonwealth Minister of the Environment in writing as soon as practicable after becoming aware
Discovery of a relic	Heritage Act 1977	Section 146	Heritage Council in writing within a reasonable time after becoming aware Note -this is not required for Projects approved under Part 5.2 of the Environmental Planning and Assessment Act (see section 115ZG). Notification and reporting is addressed in Infrastructure Approvals

5.3. Event Types

Each Environmental Event is assigned a secondary classification of an Event Type for the purpose of data analysis and general environmental management. They are grouped by areas of environmental management so that targeted auditing, training or awareness initiatives can be initiated in response to emergent trends. Each Event Type is explained in Table 2.

[1] Further information on reporting pollution incidents to EPA is provided in Section 6.6 Environmental Incident/Non-compliance Report

Table 2: Environmental Event Types and their descriptions

Event Type	Applies To:			Description
	Issue	Incident	Non-compliance	
Soil and Water	●	●	●	Covers the physical location, chemical composition and ecology of soils and waterways. Any event which changes these compositions is a Soil and Water event. Within this event type all instances of contamination, erosion and sedimentation of waterways is covered.
Flora and Fauna	●	●	●	Covers vegetation and vegetation communities as well as animals and animal habitat. Any event where vegetation is felled or damaged, animals are killed or injured, or habitat is harmed or destroyed is covered.
Waste and Spoil	●	●	●	Covers the management of Excavated Natural Material (ENM) and Virgin Excavated Natural Material (VENM) including on-site management, and disposal and also the classification and management of Waste materials. **Note:** that the transportation of spoil is covered under Traffic, Transport and Access.
Heritage	●	●	●	Covers the management of known heritage artefacts or sites, and the treatment of unexpected finds, archaeological investigations and other impacts.
Air Quality	●	●	●	Covers the management of emissions of particulate matter, odours, and gasses used as air quality parameters from worksites.
Noise and Vibration	●	●	●	Covers the management of airborne and ground borne noise and vibration and includes hold points on the commencement of any work where Out of Hours Works permits or Construction Noise Impact Statements are required.
Community Stakeholder and Business	●	●	●	Covers the management of Community and Stakeholder requirements and includes complaint response procedure, community management protocols, and the maintenance of information on websites.
Traffic Transport and Access	●	●	●	Covers the management of traffic inside and outside of sites including access points and parking requirements. This event type also covers any requirements in relation to vehicles and vehicle maintenance or the transportation of waste and spoil.
Spills and Leaks	●	●	●	Covers all instances where environmentally sensitive substances are held within a container which has the potential to leak or spill and covers pipes, hoses, fuel tanks, storage tanks and plastic containers. **Note:** Spills and Leaks specifically exclude anything in relation to the transport and deposition of sedimentation.
Management Systems	●	●	●	Covers procedural or administrate processes that are common across all areas. It specifically does not cover procedural or administrate processes which are unique to any of the other event types. For example, not completing a vegetation removal form prior to vegetation clearing is still a Flora and Fauna event. **Note:** A good example of a Management Systems NC would be not reporting an Environmental Incident within required timeframes.

6. Environmental Incident Classification and Management

Sydney Metro has defined an Environmental Incident as:

An occurrence or set of circumstances, as a consequence of which pollution (air, water, noise, and land) or an adverse environmental impact has occurred or is likely to have occurred.

Adverse environmental impact includes contamination, harm to flora and fauna (either individual species or communities), damage to heritage items, or adverse community impacts.

Planning Approvals and Environment Protection Licences permit some environmental impacts and these are not intended to be captured as Environmental Incidents.

Table 3: Examples of Environmental Incidents

Type	Example Incident
Air Quality	Odour that travels beyond the site boundary
Air Quality	Dust exceeding reasonable levels without active management measures in place
Air Quality	Operation or maintenance of plant in a manner that causes or has likely caused excessive air pollution
Soil and Water	Discharge of water on or off site in a manner that causes or has likely caused water pollution without required approvals.
Noise and Vibration	Noise that travels beyond the site boundary as a result of poorly maintained plant or operation of plant in an inefficient manner
Noise and Vibration	Failure to comply with the approved hours of work
Soil and Water	Where the chemical composition of soil or water has been detrimentally modified by a contaminant leading to potential or actual environmental harm. For example, rainfall causes a flow of water across a site that erodes soil and enters a waterway increasing the total suspended solids of that water body.
Spills and Leaks	Where a substance has leaked from, or spilt from a container that is designed to prevent that substance from escaping into the environment (including bunds, fuels tanks, chemical bottles and other containers). Spills and Leaks specifically exclude anything in relation to the transport and deposition of sedimentation.
Soil and Water	Dispose of waste in a manner that harms or is likely to harm the environment
Flora and Fauna	Harm or "pick" a threatened species, endangered population or endangered ecological community without required approvals
Flora and Fauna	Damage to vegetation, fauna or habitat including watercourses without required approvals
Heritage	Damage, disturbance, destruction or works to heritage items/relics without required approvals
Heritage	Damage, disturbance, or destruction of Aboriginal objects or places without required approvals

6.1. Incident Classification

Environmental Incidents are classified into one of three Classes that are based upon the consequence descriptors for environmental risks in the Sydney Metro Risk Matrix (refer to SM-17-00000182 Risk Management Standard). Each of these classifications trigger a variety of management actions and/or legislative requirements depending on the severity of the consequence described where Class 3 represents minor consequences and Class 1 represents major consequences.

This matrix is further sub-divided into consequence ratings ranging from C6 (low impact) to C1 (high impact). An incident transitions between a Class 3 to a Class 2 incident once material harm has been caused, and transitions into a Class 1 incident once it is determined that the Environmental Harm caused in large-scale and cannot be remediated (Table 4).

Table 4: Classification System for Environmental Incidents

Class 3			Class 2		Class 1
C6	C5	C4	C3	C2	C1
No appreciable changes to environment and/or highly localised event	Change from normal conditions within environmental regulatory limits and environmental effects are within site boundaries	Short-term and/or well-contained environmental effects. Minor remedial actions probably required	Impacts external ecosystem and considerable remediation is required	Long-term environmental impairment in neighbouring or valued ecosystems Extensive remediation required	Irreversible large-scale environmental impact with loss of valued ecosystems

6.1.1. Class 3 Incidents

These Incidents are events which cause Environmental Harm, but do not cause Material Harm to the environment. Normally Class 3 Incidents are not Notifiable Events and therefore a simple notification protocol is adopted whereby Sydney Metro must be notified within 48 hours verbally, and in writing.

In some cases it will be unclear whether Material Harm has been caused in the early stages of Incident Management. If this is the case then the process for Class 2 Incidents is followed (see Section Class 2 Incidents) until it is clear that Material Harm has not been caused.

A formal Incident Investigation report is not required for Class 3 Incidents, however, it is expected that the person responsible for completing the Incident Notification Report makes appropriate enquiries to determine the likely causal factors involved and assigns effective corrective actions.

6.1.2. Class 2 Incidents

These Incidents are events which cause Material Harm to the environment and they always trigger notification of Regulatory Authorities. These Incidents represent events that are far more serious than Class 3 Incidents and therefore strict communication protocols are required to ensure that effective and informed decisions are made (Figure 2).

The Environmental Lead, contract Environment Manager and the Independent Environmental Representative must be notified verbally as soon as possible after the observer becomes aware of a Class 2 Incident.

Class 2 Incidents must be investigated and the investigation must produce an investigation report containing corrective or preventative actions. This investigation report must be provided to Sydney Metro within 7 days of the event unless another timeframe is agreed with the EL.

Despite any arrangements for the submission of investigation reports, an Incident Notification Report must be provided with all available information and submitted to Sydney Metro within 48 hours. 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.

6.1.3. Class 1 Incidents

Class 1 Environmental Incidents are managed in the same manner as Class 2 Incidents expect where a determination is made by the Chief Executive (or delegate) that a Crisis Management Team should be activated. In this situation SM-19-00053243 Crisis Management Procedure is followed.

6.2. Incident Notification

When and Environmental Event occurs which causes Environmental Harm in all cases both verbal and written communication of the incident must be carried out immediately and within 48 hours respectively. For Class 1 and 2 Incidents the notification process shown in Figure 2 must be followed. Written communication of Environmental Incidents is via an Incident Notification Report (Section 6.3).

This process includes specific roles and responsibilities within Sydney Metro and our delivery Partners who are required to take notification actions in response to Incidents.

This notification process has been developed to ensure that crucial information about Incidents is captured early and communicated to specific individuals who can ensure the Environmental Impacts are minimised and efficient and effective responses to the event are implemented.

In particular the Principals Representative and the Environmental Lead for Sydney Metro play a crucial role in the communication of Incidents within Sydney Metro and these roles are explained in more detail below.

6.2.1. Principal's Representative (PR)

Each works package establishes a contractual interface for communication between the contracted party and Sydney Metro. Generally this interface is between the Principal Contractors Project Director and an appointed representative of Sydney Metro called the Principals Representative.

All formal written communications must pass between these two individuals electronically using TeamBinder. The Principals Representative holds certain responsibilities in the Incident management Process outlined in Figure 2.

6.2.2. Environmental Lead (EL)

Where this procedure is applied to a works package an Environmental Lead (EL) will be selected for the relevant works package. The Environmental Lead must possess environmental experience and competency in managing Incidents and be a representative of Sydney Metro for those works. This representative holds specific responsibilities outlined in Figure 2.

Figure 2: Environment Incident notification process for Class 1 and 2 Incidents

6.3. Incident Notification Reports

For all Incidents an Incident Notification Report must be completed and submitted to Sydney Metro within 48 hours. These reports satisfy the requirement for written communication to Sydney Metro and are completed using SM-17-00000105 Environmental Incident and Non-compliance Notification Report Form or a similar and consistent form approved by Sydney Metro.

6.4. Incident Investigations

Environmental Incident Investigations must be carried out for all Class 1 and Class 2 Incidents. Investigations may also be requested for any other Environmental Event at the discretion of Sydney Metro. This discretion is likely to be exercised where incidents of a similar nature are occurring repetitively.

When conducting an Environmental Incident investigation, they must:

- Be led by a lead investigator who is suitably independent investigator capable of arriving at objective findings and is experienced in conducting environmental incident investigations;
- Consider the need for legal privilege during the investigation process in consultation with legal counsel;
- Be informed by all available information that is relevant to the investigation;
- Analyse the timeline of events which led up to and followed the occurrence of Environmental Harm including the immediate incident response;
- Be conducted in a manner that is consistent with recognised investigation techniques such as ICAMS;
- Gather and record evidence;
- Seek the input of key stakeholders; and
- Identify Preventative and Corrective actions and document these in the Incident Notification Report.

6.5. Environmental Incidents with Health and Safety Impacts

It is possible that where an Event occurs that causes Environmental Harm, harm is also caused to the health, safety or wellbeing of people. In these situations there will also be a Health and Safety Incident process undertaken which is separate to the process outlined in this document.

While the definition of the Environment covers people under the POEO Act, the management of impacts upon them are carried out using the Health and Safety Incident Management protocols. This is because Health, Safety and Wellbeing requirements are governed by a range of legislation other than the POEO Act and this procedure is not comprehensive in that regard. Sydney Metro has well established processes to manage impacts on people without the need for the Environmental Incident Process to intervene.

Furthermore, where Environmental Events cause harm to both the 'environment' and people it is possible that the root causes for the respective impacts are different. It is also possible that differences in the severity of the impacts trigger inconsistent notification requirements and investigation levels. It is prudent to identify appropriate and effective corrective actions that reduce the risk of impacts to both people and the environment, therefore separate Incident Management Processes are undertaken in these situations.

For more detail on the management of Health and Safety Incidents please refer to SM-17-00000040 Health & Safety Incident Reporting & Investigation Standard.

6.6. Reporting Pollution Incidents to Relevant Authorities

If an Incident or Non-compliance is a Notifiable Event, then a report must be provided to the relevant Regulatory Authority within the timeframe(s) specified by the relevant legislation. Pollution Incidents which are causing or threatening Material Harm to the environment must be reported to each of the following authorities immediately after project personnel become aware of the Incident, as required by Section 148 of the POEO Act 1997. The contact numbers for these authorities are listed in Table 5.

Table 5: Contact details for Relevant Authorities

Type	Example incident
EPA Environment Line	131 555
Local Authority	Local Council (specific to area)
Ministry of Health	Public Health Unit (refer to http://www.health.nsw.gov.au/Pages/default.aspx to confirm local area contact details)
SafeWork NSW	131 050 or contact@safework.nsw.gov.au
Fire and Rescue NSW	000

Relevant information required to be given to EPA when making a notification is specified in Section 150 of the POEO Act 1997 as follows:

- Time, date, nature, duration and location of the incident;
- Location of the place where pollution is occurring or is likely to occur;
- Nature, the estimated quantity or volume and the concentration of any pollutants involved;
- Circumstances in which the Incident occurred (including the cause of the Incident, if known);
- Action taken or proposed to be taken to deal with the Incident and any resulting pollution or threatened pollution; and
- Other information prescribed by the regulations.

All relevant information known at the time of making the notification must be reported. If the information required by (c), (d) or (e) above is not known at the time of initial notification but becomes known afterwards, it must be reported to each authority immediately after it becomes known. Verbal notification must be followed by notification in writing within seven days of the date on which the Incident occurred.

Pollution Incidents are not required to be reported if the Incident has already come to the attention of the EPA or the Incident involves only the emission of an odour.

Failure to report a pollution Incident as required by the POEO Act 1997 is an offence.

Where any work or activity is regulated by an Environment Protection License (EPL), notification of a pollution Incident to the EPA should be made by the licensee. Thus, where the contractor holds the EPL for the project, notification to EPA shall be made by the contractor.

For any work or activity that is not regulated by an EPL, notification of pollution Incidents to EPA shall be made by Sydney Metro, unless the contractor is instructed otherwise by Sydney Metro. This includes pollution Incidents that occur as a result of pre-construction activities which may be undertaken prior to an EPL being required for a project. Pre-construction activities are determined by the Planning Approval and may include, for example, geotechnical investigations or surveys.

Where the Environmental Representative determines there to have been a significant off-site impact on people or the biophysical environment, the program Director Sustainability Environment and Planning will notify the Secretary of the Department of Environment and Planning within 48 hours in accordance with Project Infrastructure Approval Conditions. This notification will be followed by a full written report within seven days of the date on which the incident occurred.

6.6.1. Maritime Related Incident Notification and Reporting

Marine Incidents involving vessels and personnel on board vessels must be reported to the Australian Maritime Safety Authority in accordance with the guidance published on their website at:

- Australian Maritime Safety Authority Incident Reporting; and
- Reporting obligations of owners and masters of domestic commercial vessels.

6.7. Environmental Compliance Register

The Environmental Compliance Register is used to manage the information associated with reporting of Environmental Events. This register is maintained by the Manager Environment and may be used by a variety of individuals to input data. For access to the register or information on its use contact the Manager Environment.

This register analyses the data it contains and produces environmental compliance statistics that are used to meet a range of reporting and environmental management requirements.

7. Environmental Non-compliance

An Environmental Non-compliance is a breach of an Environmental Requirement originating from Planning Approvals, Environment Protection Licenses, lease agreements, and other requirements documented in environmental management plans. It is important to note that regardless of whether an event is classified as a Non-compliance or an Incident the process behind managing the event remains the same, with the following exceptions:

- Non-compliances are not notifiable to Regulatory Authorities under the POEO Act;
- Non-compliances are reported to have occurred on the day the breach was raised as opposed to the date when the requirement was breached (this is to preserve historical reporting and analysis – see Section 7.1);
- Non-compliances are not divided into severity classes (Section 5.2);
- Non-compliances do not have the potential to trigger crisis or emergency management processes; and
- There is an informal notification process in the immediate timeframe following a Non-compliance being raised.

When an Environmental Event occurs that causes Environmental Harm and also breaches one or more Environmental Requirements, then an Incident Notification Report will be created which records what requirements were breached.

If a Non-compliance is identified then it must be raised using SM-17-00000105 Environmental Incident and Non-compliance Notification Report Form within 48 hours by the party responsible for the breach.

7.1. Non-compliance Rate

A key environmental performance statistic used by Sydney Metro is the Non-compliance Rate. This statistic provides a standardised way of comparing the performance of different projects or contractors. The NC Rate is calculated using the following formula:

$$= \left(\frac{NCs + Incidents\ with\ breaches\ raised\ in\ month) + (Open\ NCs + Open\ Incidents\ with\ breaches\ from\ previous\ months)}{Total\ Number\ of\ Ongoing\ Requirements} \right) X\ 100$$

Each month a count of the number of NCs raised, and Incident raised where Environmental Requirements have also been breached is counted. Added to this number is the number of these events which were raised in previous months that still held an Open status in the current reporting period. Non-compliance and incident Events are considered Open if any of the associated Actions are Open. The total is divided by the number of Environmental Requirements which are actively being complied with (Ongoing Requirements) and a multiplying factor of 100 is applied.

8. Corrective and Preventative Actions

Whenever an Environmental Event is raised actions will be assigned to the event irrespective of whether it is an Issue, Incident or Non-compliance. These actions will generally be Corrective Actions which are implemented to eliminate the cause of the Incident, Non-compliance or Issue and can be thought of as reactive measures in response to the Environmental Event.

Preventative Actions may also be assigned to prevent the occurrence of an Incident, Non-compliance or Issue and can be considered pro-active measures which may be recommended following a detailed investigation of the event.

Actions must:

- Limit impacts as far as is reasonably practicable;
- Eliminate risk where practicable;
- Where is it not practicable to eliminate the risk, follow the hierarchy of controls;
- Address root causes and contributing factors; and
- Be prioritised based on risk.

The Executive Director, Safety Sustainability & Environment must ensure there are systems in place to:

- Monitor corrective action status;
- Escalate issues to the executive where progress on a corrective action is inadequate; and
- Retain all corrective action responses for recording purposes.

8.1. Action Status

Actions are allocated to a person who will take accountability for ensuring it is carried out within a timely manner and completed by the due date.

Actions are either closed immediately if the Action has already been carried out and verified by Sydney Metro, or are created with an open status. The Action will remain in an open state until such a time as Sydney Metro verifies that the responsible person has completed the Action in a satisfactory manner. Until all actions associated with an Incident, Non-compliance or Issue are closed the original Environmental Event is considered to be open as well. This is relevant when calculating the NC Rate as open Non-compliances and Incidents contribute toward the calculation of this statistic.

Verification is determined by the Environmental Lead by sighting evidence of the Actions implementation.

9. Related documents and references

Related documents and references
• SM-17-00000022 Environmental & Sustainability Management Manual • SM-17-00000182 Risk Management Standard • SM-17-00000040 Health & Safety Incident Reporting & Investigation Standard • SM-19-00053243 Crisis Management Procedure • SM-17-00000105 Environmental Incident and Non-compliance Notification Report Form • SM-17-00000107 Environmental Inspection Report Template • SM-17-00000203 Sydney Metro Glossary

10. Superseded documents

Superseded documents
There are no documents superseded as a result of this document.

11. Document history

Version	Date of approval	Notes
1.0	31 March 2015	New document
2.0	7 July 2016	IMS Review
3.0	7 April 2017	IMS Review
4.0	23 November 2018	IMS Review
5.0	11 February 2019	IMS Review
5.1	18 February 2019	Minor correction to formula

Appendix G Unexpected Contamination Finds procedure

Unexpected finds and contaminated land procedure

Unexpected Find shall be addressed in compliance with the Built's Unexpected Finds protocol listed below:

Unexpected Finds Protocol – Asbestos contamination

If asbestos is detected in unexpected areas prior to, or during, site development works the following 'Unexpected Finds Protocol' will apply:

1. Stop work & move at least 10 meters away from the affected area;
2. Do not leave the area/location due to the potential for contaminating other areas such as toilets, change rooms, lunchroom, etc.;
3. Notify Built Management (Construction Manager, Project Manager, Site Manager & HSE Team) and Sydney Metro of the unexpected finds. Notification should include location of potential contamination, depth at which contamination was found and works being carried out at the time of the discovery;
4. Only licensed, competent and authorised persons may access the area in which the asbestos or suspected asbestos is identified;
5. Contact an Occupational Hygienist/Licensed Asbestos Assessor to attend site to conduct an additional assessment i.e., sampling, further investigation etc. Sydney Metro should be notified of any additional assessments;
6. Develop a plan for managing and/or remediating the suspected finds.
7. Air monitoring should be conducted in accordance with the applicable legislation;
8. Sampling can be completed by hygienist or engage licensed removalists;
9. Maintain air monitoring in public areas until all potential hazards are removed;
10. Clearance monitoring shall be undertaken subsequent to asbestos removal;
11. Once contamination find has been addressed Site Engineer is to approve recommencement of works in the vicinity of the remediation site. No works can recommence until findings have been reviewed by the Environmental Manager.

Unexpected Finds Protocol – Soil contamination

If soil contamination (fuel/oils, odorous/stained soil, buried chemical drums, ashy material, unusually coloured material, yellow/red mottling in soil profile indicating of Acid Sulfate Soils) is detected in unexpected areas prior to, or during, site development works the following 'Unexpected Finds Protocol' will apply:

1. Stop work & move at least 10 meters away from the affected area;

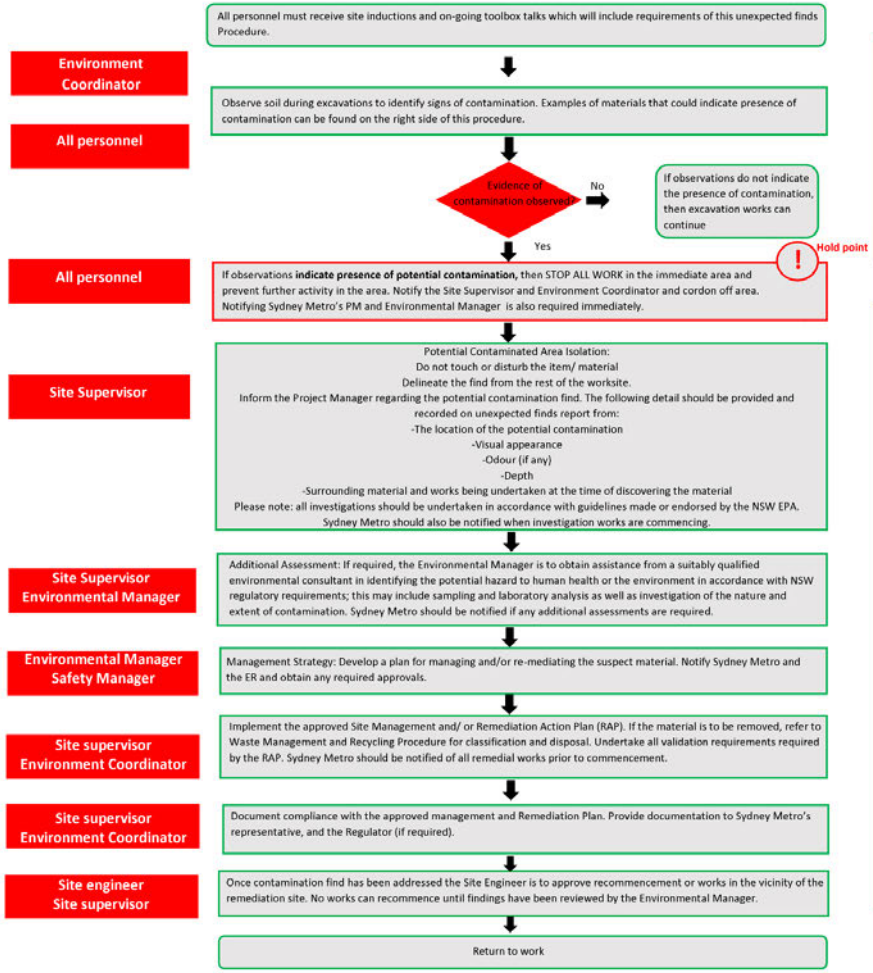
2. Do not leave the area/location due to the potential for contaminating other areas such as toilets, change rooms, lunchroom, etc.;
3. Notify Built Management (Construction Manager, Project Manager, Site Manager & HSE Team) and Sydney Metro of the unexpected finds. Notification should include location of potential contamination, depth at which contamination was found and works being carried out at the time of the discovery;
4. Only licensed, competent and authorised persons may access the area in which the asbestos or suspected asbestos is identified;
5. Contact an Occupational Hygienist/Environmental Consultant to attend site to conduct an additional assessment i.e., sampling, further investigation etc. Sydney Metro should be notified of any additional assessments;
6. Develop a plan for managing and/or remediating the suspected finds.
7. Air monitoring should be conducted in accordance with the applicable legislation 9if required);
8. Maintain air monitoring (if required) in public areas until all potential hazards are removed;
9. Once contamination find has been addressed Site Engineer is to approve recommencement of works in the vicinity of the remediation site. No works can recommence until findings have been reviewed by the Environmental Manager

Unexpected Finds Protocol - Buried Structures

In the unlikely event that buried structures such as Underground Storage Tanks (USTs) are encountered during site works, the structure(s) and any associated pipe-work should be managed /removed as follows:

1. Upon discovery of structure, the site foreman is to be notified and the area barricaded;
2. Visual identification of the tank and associated pipe-work;
3. Remove and dispose of the structure and associated pipe-work by a qualified contractor. In the case of an UST, the tank must be removed in accordance with Australian Institute of Petroleum (AIP) Code of Practice and Australian standards;
4. Excavate and stockpile impacted materials (based on field observations) for classification;
5. Validation of the remedial pit by a qualified environmental consultant for the contaminants of concern at the following sampling density:
6. Base of tank pit excavation - 1 sample per 25 m^2 (i.e. 5m x 5 m grid);
7. Side of tank pit excavation - 1 sample per 10 linear metre (minimum of 1 sample per side) and 1 sample per 2m – 3m depth interval;
8. Fuel feed lines/pipe-work - 1 sample per 10 linear metre and 2 - 3 depth interval; and
9. If required, “chase out’ all of materials in the remediation pit identified to be impacted by petroleum/hydrocarbons and further validation sampling and analysis as required to assess appropriate removal of impacted materials;
10. Waste classification and off-site disposal of impacted materials in accordance with Section 4.12 of this plan on Waste Management and
11. Inclusion of validation, waste classification and disposal documents (including landfill dockets and, in the case of USTs, tank and pipe work destruction certificates) in the validation report.

St Marys SPO Unexpected Finds procedure



Potential Unexpected Finds

- -Fuels or oils
- -Asbestos cement fragments or other potentially asbestos containing materials
- -Odorous or stained soil
- -Buried chemical drums, tanks, containers, or waste
- -Tarry or ashy material
- -Brightly or unusually coloured material
- -Yellow and/or red mottling in the soil profile indicating there may be Acid Sulfate Soils (ASS)

Asbestos:

An unexpected find occurs when Asbestos Containing Materials (ACM) not identified in the Asbestos Register is found on site. Asbestos finds are to be managed in accordance with this plan and the Project Health and Safety Management Plan, as it spans both contamination and HSE frameworks.

Acid Sulfate Soils (ASS)

ASS are naturally occurring soils, sediments or organic substrates that are formed under waterlogged conditions in coastal areas. When exposed to air after being disturbed, soils containing iron sulfides produce sulfuric acid and often release toxic quantities of Iron, Aluminium, and heavy metals.
If ASS is encountered, an Acid Sulfate Soils Management Plan would be required and should include:

- Modifying the project to avoid the area of ASS;
- Delineation and removal to a suitably licenced facility;
- Onsite treatment to neutralise the ASS, which could include the application of lime in accordance with recommendations of the Environmental consultant

Note: The management of any ASS needs to include appropriate erosion and sedimentation controls to minimise the potential for pollution to waters.

Protected or 'No-Go' Areas

- If works in these areas are required, obtain a Permit to Enter Protected or 'No-Go' Areas

Monitoring

- Observation during excavation or following unexpected find
- As required by the contamination consultant in the event of an unexpected find

Recording

- Unexpected find record form
- Details of any additional sampling and analysis required to identify contaminant

Unexpected Finds Protocol – Human remains

To avoid doubt, all suspected bone items must be treated as potential human skeletal remains, and work in the immediate vicinity must stop while they are protected and investigated as a matter of urgency.

Stop Work and preliminary notification

If bone is uncovered, all work in the vicinity of the find must stop to allow for a positive identification as either human or non-human bone.

The Project Excavation Director must be notified.

Preliminary notification must be made to the NSW Police in compliance with Section 35 of the Coroners Act 2009.

What?	When bones are uncovered at a site, all work in the area of the find must stop immediately and the site must be secured.
Who?	The discoverer will immediately notify machinery operators so that no further disturbance of the remains will occur, as well as notifying the foreman/site supervisor, principal contractor, project archaeologist/Excavation Director and Sydney Metro Environmental Manager. Preliminary notification to the NSW Police will be undertaken by the Excavation Director. Notification should provide verbal description of the remains and inform the police that consultation with technical specialists is being undertaken to confirm that the remains are human, as well as the burial context (archaeological or less than 100 years old, refer Step 2).
How?	Inform all site personnel of restricted access to the area of the discovery until further notice. Area must be fenced off (flagging or temporary exclusion fencing).
Actions	Notify site supervisor, principal contractor, Project Archaeologist / Excavation Director and Sydney Metro Environmental Manger of the find and protect the suspected remains until an initial assessment can be undertaken by a technical specialist. Preliminary notification to NSW Police by Sydney Metro Environmental Manager

Confirm the remains are human

Skeletal remains could either be articulated and in a recognisable form of burial such as a coffin or common burial position of the body (e.g. supine, prone or flexed), or they could be disarticulated or fragmented remains. Within the boundaries of a known historic burial ground, there is a high probability of the remains being human. In a suspected forensic case (less than 100 years old), the remains may have clothing and/or human tissue. Disarticulated or fragmented bones are often uncovered and these

may require specialist assessment to determine legal jurisdiction.

If suspected human remains are identified during the course of project works, preliminary notification must be made to the NSW Police in compliance with Section 35 of the Coroners Act 1999 (refer Step 1). NSW Police would be contacted immediately upon receipt of confirmation of human provenance.

What?	Confirmation that the remains are human, their burial context - whether they are forensic (less than 100 years) or archaeological (older than 100 years) and suspected ancestry (Aboriginal or non-Aboriginal).
Who?	Excavation Director and or Forensic or physical anthropologist, or archaeologist with specialist skills such as an osteoarchaeologist. Notification to the NSW Police will be undertaken by the Sydney Metro Environmental Manager.
How?	Consultation could be undertaken as either an on-site inspection or via good quality photos sent to the nominated technical specialist of 1) the remains; and 2) the site general site location of the discovery.
Actions	Contact nominated technical specialists to confirm that the remains are: a) human, b) burial context (archaeological or forensic), and c) suspected ancestry (Aboriginal or non-Aboriginal). For the duration of the Sydney Metro project, the nominated technical specialists are: • Forensic Anthropologist – TBC by contractor for project area. • Nominated Excavation Director – TBC by contractor for project area. • Sydney Metro Environmental Manager to conduct and or oversee liaison with NSW Police. The archaeologist may be able to identify the nature of remains without input from the Forensic Anthropologist. The Forensic Anthropologist should be contacted as required

Notification based on jurisdiction (forensic or archaeological)

Once confirmation is received from the technical specialist that the remains are of human origin, there

are three possible statutory pathways to follow based on the assessment.

What?	Forensic case: remains are less than 100 years old
Who?	If it is determined by specialist assessment that the remains are forensic, the remains come under the jurisdiction of the State Coroner and the Coroners Act 2009.
How?	If it is determined by specialist assessment that the remains are forensic, the remains come under the jurisdiction of the State Coroner and the Coroners Act 2009.
Actions	Environmental Manager to liaise with NSW Police

What?	Archaeological – non-Aboriginal human remains – more than 100 years old.
Who?	Follow the Sydney Metro Archaeology Exhumation Methodology
How?	Follow the Sydney Metro Archaeology Exhumation Methodology
Actions	Follow the Sydney Metro Archaeology Exhumation Methodology

What?	Archaeological – suspected Aboriginal human remains – more than 100 years old.
Who?	Recording of Aboriginal ancestral remains must be undertaken by, or conducted under the direct supervision of a specialist with registered Aboriginal parties (RAPs) present.
How?	The RAPs must be present where it is reasonably suspected that Aboriginal burials or human remains have been encountered.
Actions	Notify RAPs and Heritage NSW and follow the Aboriginal cultural heritage assessment report (ACHAR). Follow the Sydney Metro Archaeology Exhumation Methodology

Appendix H Unexpected Heritage Finds procedure

Unexpected Heritage Finds Procedure

SM-20-00099497

Metro Body of Knowledge (MBoK)

Applicable to:	Sydney Metro
Document Owner:	Senior Heritage Advisor
System Owner:	Director, Environment, Sustainability and Planning
Status:	Final
Version:	4.0
Date of issue:	16 August 2021
Review date:	16 August 2022

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1. Introduction

1.1. Purpose

This Procedure has been prepared to provide a consistent approach to the management of unexpected Aboriginal and non-Aboriginal heritage uncovered during Sydney Metro activities. It applies to all Sydney Metro activities, both the pre-construction (prior to the Construction Heritage Management Plan approval) and construction phase (post Construction Heritage Management Plan approval) and pre or post-approval activities that are subject to the NSW *Heritage Act (1977)* (Heritage Act) and the *National Parks and Wildlife Act 1974* (NPW Act).

In NSW, there are strict laws to protect and manage both Aboriginal and non-Aboriginal heritage. As a result, appropriate management measures need to be implemented to avoid or minimise impacts, ensure compliance with statutory requirements, and to minimise the risk of penalties to individuals, Sydney Metro and its contractors. This Procedure includes Sydney Metro's heritage notification obligations under the Heritage Act, NPW Act and the *Coroner's Act 2009* and the requirements of the conditions of approval (CoA) issued by NSW Department of Planning, Industry and Environment.

Note that a Contractor must not amend this Procedure or use a different procedure without the prior approval of Sydney Metro.

This Procedure must be read in conjunction with the relevant approval conditions, contract documents and other plans and procedures including SM-20-00099495 Exhumation Management Procedure, in addition to any other relevant documents as developed by the contractor for the delivery of Sydney Metro activities.

1.2. Scope

This Procedure applies to the discovery of any unexpected heritage item, where the find is not anticipated in an approved Archaeological Research Design (ARD) or Archaeological Method Statement (AMS) or other project specific document related to heritage. It applies to all Sydney Metro activities.

This Procedure must be followed by all Sydney Metro staff, contractors, subcontractors or any person undertaking work for Sydney Metro. It includes references to some of the relevant legislative and regulatory requirements, but is not intended to replace them.

This Procedure *does not apply* to the discovery and disturbance of a heritage items:

- As a result of investigations being undertaken in accordance with the *Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW4376 2010*; an Aboriginal Heritage Impact Permit (AHIP) issued under the NPW Act; or a permit approval issued under the Heritage Act; or
- As a result of construction related activities, where the disturbance is permissible in accordance with an AHIP or an approval issued under the Heritage Act or State Significant Infrastructure (SSI)/State Significant Development (SSD) planning approval; or
- Of local significance, where the find is identified and anticipated to occur in an AMS or ARD.

Construction Environment Management Plans (CEMP) should reference or include this Procedure. Where there is an approved CEMP, it must be followed in the first instance. Where there is a difference between approved CEMPs and this Procedure, the approved CEMP must be followed. Where an approved CEMP does not provide sufficient detail on particular issues, this Procedure should be used as a reference.

1.3. Definitions and abbreviations

1.3.1. What is an unexpected heritage find?

An 'unexpected heritage find' can be defined as a:

- Unanticipated discovery of an Aboriginal object or archaeological work or relic, which Sydney Metro does not have approval to disturb and/or is not covered under an existing management process or plan
- Find that has not been identified or assessed in a project assessment or document related to heritage
- Find that is not referenced in an archaeological research design (ARD) or archaeological method statement (AMS)
- Find that is not covered by an existing approval under the NPW Act or Heritage Act.

1.3.2. Abbreviations

All terminology in this Procedure is taken to mean the generally accepted or dictionary definition. Acronyms and terms specific to this document are listed below.

Other terms and jargon are defined within the SM-17-00000203 Sydney Metro Glossary.

Table 1: Terms/acronyms and definitions

	Definitions
Aboriginal object	An Aboriginal object is any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains. An Aboriginal object may include a shell midden, stone tools, bones, rock art, Aboriginal-built fences and stockyards, scarred trees and the remains of fringe camps.
AHIP	Aboriginal Heritage Impact Permit.
AMS	Archaeological Method Statement.
ARD	Archaeological Research Design.
CEMP	Construction Environmental Management Plan.
CoA	Conditions of Approval.
CSSI	Critical State Significant Infrastructure.
Disturbance	Disturbance is considered to be any physical interference to an item that results in it being destroyed, defaced, damaged, harmed, impacted or altered in any way (this includes archaeological investigation activities).
EP&A Act	NSW *Environmental Planning and Assessment Act 1979*.

	Definitions
Excavation Director	A person that has been determined by the Heritage Council of NSW or delegate to meet the Criteria for Assessment of Excavation Directors (4 September 2019 and as updated) and can therefore competently archaeologically investigate a site of either local and/or state significance.
Heritage Act	NSW *Heritage Act 1977*.
Heritage NSW	Formerly Office of Environment and Heritage (OEH). Now Heritage NSW as part of the Department of Premier and Cabinet NSW.
NPW Act	NSW *National Parks and Wildlife Act 1974*.
Relic (non-Aboriginal heritage)	A relic means any deposit, artefact, object or material evidence that: a) Relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and b) Is of State or local significance.
SSD	State Significant Development.
SSI	State Significant Infrastructure.
Work (non-Aboriginal heritage)	Archaeological features such as historic utilities or buried infrastructure that provide evidence of prior occupations such as former rail or tram track, timber sleepers, kerbing, road pavement, fences, culverts, historic pavement, buried retaining walls, cisterns, conduits, sheds or building foundations, but are also subject to assessment by the Excavation Director to determine its classification.

1.4. Accountabilities

The Director, Environment, Sustainability & Planning is accountable for this Procedure including approving the document, monitoring its effectiveness and performing a formal document review.

Direct Reports to the Chief Executive are accountable for ensuring the requirements of this Procedure are implemented within their area of responsibility.

Direct Reports to the Chief Executive who are accountable for specific projects/programs are accountable for ensuring associated contractors comply with the requirements of this Procedure.

2. Types of unexpected heritage finds and their statutory protections

Project, field and environmental personnel (including construction contractors) are critical to the early identification and protection of unexpected heritage finds.

Appendix A: Examples of unexpected heritage finds illustrates the wide range of heritage items uncovered to date during Transport for NSW projects and provides an understanding of what unexpected finds may look like.

Unexpected heritage finds are categorised as either:

(a) Aboriginal objects;

(b) Historic (non-Aboriginal) heritage items; or

(c) Human skeletal remains.

The relevant legislation that applies to each of these categories is described below.

2.1. Aboriginal objects

The NPW Act provides the basis for the care, protection and management of Aboriginal objects and places in NSW.

An Aboriginal object is defined as: *any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.*

An 'Aboriginal place' is an area declared by the Minister administering the Act to be of special significance with respect to Aboriginal culture. An Aboriginal place does not have to contain physical evidence of occupation (such as Aboriginal objects).

Under section 87 of the Act, it is an offence to harm or desecrate an Aboriginal object or place. There are strict liability offences. An offence cannot be upheld where the harm or desecration was authorised by an AHIP and the permit's conditions were not contravened. Defences and exemptions to the offence of harming an Aboriginal object or Aboriginal place are provided in section 87, 87A and 87B of the Act. A person must notify Heritage NSW if a person is aware of the location of an Aboriginal object.

Penalties for some of the offences can include two years imprisonment and/or up to $550,000 (for individuals), and a maximum penalty of $1.1 million (for corporations).

Examples of Aboriginal objects include stone artefacts, shell middens, axe grinding grooves, pigment or engraved rock art, burials and scarred trees.

IMPORTANT!

All Aboriginal objects, regardless of significance, are protected under law.

If any impact is expected to an Aboriginal object, an AHIP is usually required from Heritage NSW. When a person becomes aware of an Aboriginal object they must notify the Director-General of Heritage NSW about its location. Assistance on how to do this is provided in section 4 (Step 5).

2.2. Historic (non-Aboriginal) heritage items

The Heritage Act provides for the care, protection and management of heritage items in NSW. Historic (non-Aboriginal) heritage items include:

- Archaeological 'relics' as defined under the Heritage Act; and
- Other items such as works, buildings or movable objects, which are not considered 'relics' under the Act.

2.2.1. Archaeological relics

Under section 139, it is an offence to disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed, unless the disturbance or

excavation is carried out in accordance with an excavation permit issued by Heritage NSW under the Act.

A relic is defined as: *'any deposit, artefact, object or material evidence that: (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and (b) is of State or local heritage significance.'*

A person must notify Heritage NSW, if a person is aware or believes that they have discovered or located a relic (section 146). Penalties for offences under the Heritage Act can include six months imprisonment and/or a fine of up to $1.1million.

IMPORTANT!

All relics are subject to statutory controls and protection.

If a relic is likely to be disturbed, an approval is usually required from the Heritage Council of NSW. When a person discovers a relic, they must notify the Heritage Council of NSW of its location.

2.2.2. Other items

Some historic heritage items are not considered to be 'relics', but are instead referred to as works, buildings, structures or movable objects. Examples of these items that may be encountered include culverts, historic pavements, retaining walls, tramlines, rail tracks, turn tables, timber sleepers, cisterns, fences, sheds, buildings and conduits.

Usually archaeological relics are uncovered via a process of excavation or soil removal. When an unexpected find is uncovered, an archaeological excavation permit under section 140 or section 60 of the Heritage Act may be required to further investigate or remove it if investigation is not covered by an existing approval. In contrast, 'other historic items' either exist above the ground surface (for example a shed), or they are designed to operate and exist beneath the ground surface (for example a culvert).They may also need a permit to alter, disturb or remove them if there is not an approval already in place.

2.3. Human skeletal remains

SM-20-00099495 Exhumation Management Procedure provides a more detailed explanation of the approval processes related to human skeletal remains.

Human skeletal remains can be classified as:

- Reportable deaths;
- Aboriginal objects; or
- Relics

Where it is suspected that less than 100 years has elapsed since death, human skeletal remains come under the jurisdiction of the State Coroner and the *Coroners Act 2009* (NSW). Under s35(2) of the Act, a person must report a death to a police officer, a coroner or an assistant coroner as soon as possible. This applies to all human remains less than 100 years old regardless of ancestry. Public health controls may also apply.

Where the remains are suspected of being more than 100 years old, they are considered to be either Aboriginal objects or non-Aboriginal relics, depending on the ancestry of the

individual. Aboriginal human remains are protected under the NPW Act, while non-Aboriginal heritage remains are protected under the Heritage Act.

The discovery of Aboriginal human remains also triggers notification requirements to the Commonwealth Minister for the Environment under s20 (1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*.

IMPORTANT!

All human skeletal remains are subject to statutory controls and protections.

All bones must be treated as potential human skeletal remains and work around them must stop while they are appropriately protected and investigated, the relevant authorities notified and approvals received.

3. Unexpected heritage finds procedure

In the event that an unexpected find is encountered on a Sydney Metro project, the steps summarised in Figure 1 and detailed in Table 2 must be followed. There are seven steps in the procedure.

IMPORTANT!

Sydney Metro may have approval to impact certain heritage items during construction. If you think that you may have discovered a heritage item and you are unsure whether an approval is in place or not, **STOP** work and follow this Procedure.

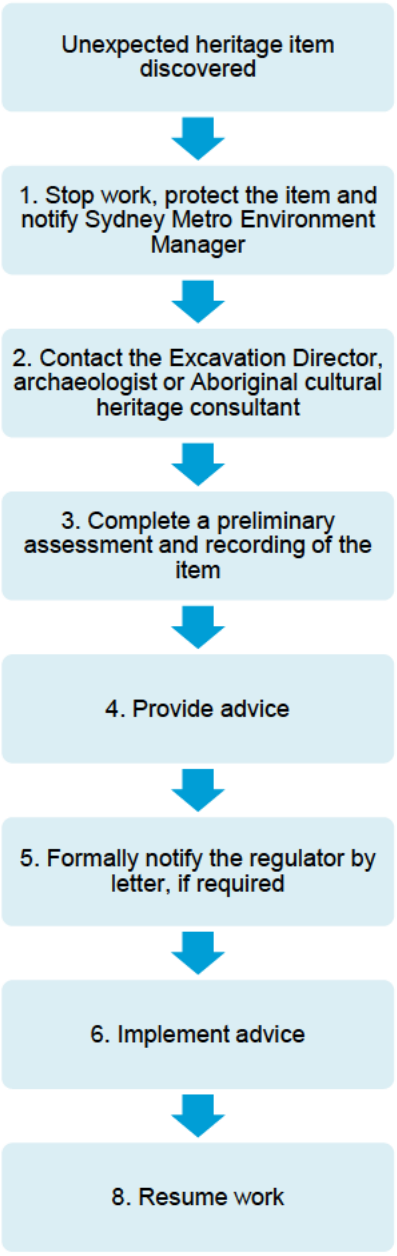

Figure 1: Summary of steps to be taken on the discovery of an unexpected heritage item

Table 2: Specific tasks to be implemented following the discovery of an unexpected heritage item

Step	Task	Responsibility	Guidance and tools
1	**Stop work and protect the item**		
1.1	Stop all work in the immediate area of the item and notify the Project Manager	Contractor/ Supervisor	Appendix A: Examples of unexpected heritage finds
1.2	Establish a 'no-go zone' around the item. Use high visibility fencing, where practical. No ground disturbing work is to be undertaken within this zone until further archaeological investigations are completed, and if required, appropriate approvals are obtained. Inform all on-site personnel about the no-go zone.	Contractor's Project Manager or Supervisor	
2	**Engage an archaeologist**		
2.1	Contact the nominated Excavation Director, archaeologist or Aboriginal cultural heritage consultant to discuss the location and nature of the item and arrange an inspection. The project CEMP should contain the contact details of the archaeologist. Provide as much information as possible to the Excavation Director, archaeologist or Aboriginal cultural heritage consultant, including photographs of the item. Inform the Sydney Metro Environment Manager, and keep them involved in the process. The Environment Manager will inform the Sydney Metro Senior Heritage Advisor.	Contractor's Project Manager	
2.2	Where there is no project Excavation Director, archaeologist or Aboriginal cultural heritage consultant engaged for the work, engage a suitably qualified consultant to assess the find. If the find is likely to be an Aboriginal object, engage a suitably qualified and experienced Aboriginal cultural heritage consultant. If the find is a non-Aboriginal heritage item, engage a suitably qualified and experienced historical archaeological consultant.	Contactor's Project Manager	
3	**Preliminary assessment and recording**		
3.1	Occasionally, the Excavation Director, archaeologist or Aboriginal cultural heritage consultant may determine from the photographs provided at Step 2.1 that it is not necessary to inspect the item because no heritage constraint exists for the project (for example the item is not an Aboriginal object or archaeological relic). This advice should be provided in writing (for example via email or letter with the consultant's name and company clearly identifiable) to the Sydney Metro Project Manager, Environment Manager and Senior Heritage Advisor.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant	Proceed to Step 7
3.2	Arrange access for the Excavation Director, archaeologist or Aboriginal cultural heritage consultant to inspect the item as soon as practicable. In most cases, a site inspection is required to conduct a preliminary assessment.	Contactor's Project Manager/ Excavation Director	

Step	Task	Responsibility	Guidance and tools
3.3	Subject to the Excavation Director, archaeologist or Aboriginal cultural heritage consultant's assessment, work may recommence at a set distance from the item. This is to protect any other archaeological evidence that may exist in the vicinity, which may have not yet been uncovered. The 'no-go zone' established in Step 1.2 may need to be adjusted to reflect the area of archaeological potential, as determined by the Excavation Director, archaeologist or Aboriginal cultural heritage consultant.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant/ Contractor's Project Manager	
3.4	Has the item been damaged or harmed? If yes, record the incident in the Incident Management System. Implement any additional reporting requirements related to the planning approval and CEMP where relevant	Contractor's Project Manager/ Excavation Director, archaeologist or Aboriginal cultural heritage consultant	
3.5	Can the work avoid further impact to the item? Project Manager to confirm with Sydney Metro Environment Manager.	Contractor's Project Manager	
3.6	Record the item and complete the Unexpected Heritage Item Recording Form.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant	Appendix B: Unexpected heritage find recording form Appendix C: Photographing unexpected heritage items
3.7	Is the item likely to be bone? If yes, follow the steps in Appendix D 'Uncovering bones'. Where it is obvious that the bones are human remains, you must notify the local police by telephone immediately. They may take command of all or part of the site. Also refer to SM-20-00099495 Exhumation Management Procedure. If no, proceed to the next step.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant	
3.8	The Excavation Director, archaeologist or Aboriginal cultural heritage consultant may provide advice after the inspection and preliminary assessment that no heritage constraint exists for the project (for example the item is not an Aboriginal object or relic). This advice should be provided in writing (for example via email or letter with the consultant's name and company clearly identifiable) to the Sydney Metro Project Manager, Environment Manager and Senior Heritage Advisor.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant	Proceed to Step 7
3.9	Where required, seek additional specialist technical advice (such as a forensic or physical anthropologist to identify skeletal remains). The Excavation Director, archaeologist or Aboriginal cultural heritage consultant can provide contacts for such specialist consultants.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant	

Step	Task	Responsibility	Guidance and tools
4	**Provide advice**		
4.1	The Excavation Director, archaeologist or Aboriginal cultural heritage consultant should provide written advice with input from Registered Aboriginal Parties where appropriate. The plan should include as a minimum a) a description of the item, b) an assessment of the significance of the item, c) approval or statutory notification requirements, d) reporting requirements, e) consultation requirements, and f) relevance to other project approvals or management plans.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant	Appendix D: Archaeological/heritage advice checklist **Other references** DECCW 2010, Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 DECCW 2010, Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW Heritage Branch 2009, Assessing Significance for Historical Archaeological Sites and 'Relics'
4.2	In preparing the advice, the Excavation Director, archaeologist or Aboriginal cultural heritage consultant must review the CEMP, heritage sub-plans, conditions of project approval and associated heritage assessment documentation (for example an Environmental Impact Statement Technical Paper). The Excavation Director, archaeologist or Aboriginal cultural heritage consultant must determine if the item is consistent with previous heritage or project approvals or management plans. The Project Manager must provide all relevant documents to the Excavation Director to assist with this.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant/ Contractor's Project Manager	
4.3	The Excavation Director, archaeologist or Aboriginal cultural heritage consultant must submit this advice as a report, letter or email to the Project Manager as soon as practicable.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant	
4.4	The Project Manager, Sydney Metro Environment Manager and Sydney Metro Senior Heritage Advisor should review the advice to ensure that all requirements are addressed and can be reasonably implemented.	Consultant's Project Manager/ Sydney Metro Environment Manager/ Sydney Metro Senior Heritage Advisor	
5	**Notify the regulator, if required**		
5.1	Based on the advice and any statutory requirements, is notification to Heritage NSW and the Secretary required? If no, proceed directly to Step 6. If yes, proceed to next step.	Sydney Metro Environment Manager/ Sydney Metro Senior Heritage Advisor	

Step	Task	Responsibility	Guidance and tools
5.2	If notification is required, complete the template notification letter and forward with supporting documentation (including advice obtained at Step 4) to the Sydney Metro Environment Manager. The Environment Manager will seek the approval of the Sydney Metro Senior Heritage Advisor and the signature of the Director Project Environment, Sustainability & Planning or Director Environment, Sustainability & Planning	Sydney Metro Environment Manager	Appendix E: Template notification letter
5.3	Forward the signed notification letter to Heritage NSW once approved and cc Sydney Metro. Informal notification (via a phone call or email) to Heritage NSW prior to sending the letter is appropriate. The advice and completed Unexpected Heritage Item Recording Form (Appendix B) must be submitted with the notification letter (for both Aboriginal objects and non-Aboriginal relics). If the item is an archaeological relic as defined under the Act, a section 146 notification form must also be completed and sent to Heritage NSW as part of the notification.	Sydney Metro Environment Manager	Appendix B: Unexpected heritage find recording form Appendix E: Template notification letter
5.4	A copy of the final signed notification letter, archaeological or heritage management plan and the Unexpected Heritage Item Recording Form is to be kept on file and a copy sent to the Sydney Metro Project Manager	Sydney Metro Environment Manager/ Contractor's Project Manager	
6	**Implement advice**		
6.1	The advice should be modified to take into account any additional advice resulting from notification and discussions with the regulator if required.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant/ Contractor's Project Manager	
6.2	Implement advice. Where impact cannot be avoided, this could include a formal assessment of heritage significance and impact assessment, preparation of excavation or recording methodologies, consultation with Registered Aboriginal Parties and obtaining heritage approvals if required.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant/ Contractor's Project Manager	DECCW 2010, Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 DECCW 2010, Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW
6.3	Where heritage approvals are required, contact the Sydney Metro Environment Manager for further advice and support. Please note there are time constraints associated with heritage approval preparation and processing.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant/ Contractor's Project Manager	

Step	Task	Responsibility	Guidance and tools
6.4	For SSI or SSD projects, or projects approved under Part 5 of the EP&A Act, assess whether the heritage impact is consistent with the project approval or if project approval modification is required from the Department of Planning, Industry and Environment or the relevant consent authority.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant/ Contractor's Project Manager	
6.5	Where statutory approvals (or project modifications) are required, impact upon Aboriginal objects or relics must not occur until heritage and planning approvals have been issued by the appropriate regulator.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant/ Contractor's Project Manager	
6.6	Where statutory approval is not required but where recording is recommended by the Excavation Director, archaeologist or Aboriginal cultural heritage consultant, sufficient time and resources must be allowed for this to occur.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant/ Contractor's Project Manager	
6.7	Ensure short term and permanent storage locations are identified for archaeological material or other heritage material recovered from site, where required. Interested third parties (for example local Aboriginal land councils, local councils or museums) should be consulted on this issue. Contact the Excavation Director, archaeologist or Aboriginal cultural heritage consultant for advice on this issue.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant/ Contractor's Project Manager	
7	**Resume work**		
7.1	Seek written clearance to resume project work from the Excavation Director, archaeologist or Aboriginal cultural heritage consultant. Clearance would only be given once all archaeological excavation or heritage recommendations and approvals (where required) are complete. Resumption of project work must be in accordance with all the relevant project and heritage approvals/determinations.	Contractor's Project Manager	
7.2	If required, ensure archaeological excavation/heritage reporting and other heritage approval conditions are completed in the required timeframes. This includes artefact retention repositories, conservation and/or disposal strategies.	Excavation Director, archaeologist or Aboriginal cultural heritage consultant/ Contractor's Project Manager	
7.3	If additional unexpected heritage items are discovered, this procedure must begin again from Step 1.	All	

4. Responsibilities

Table 3: Roles and responsibilities

Role	Responsibility
Contractor/Supervisor	• Stop work immediately when an unexpected heritage item is encountered. Cordon off area until Contractor Environmental Manager/Excavation Director, archaeologist or Aboriginal cultural heritage consultant advises that work can recommence. • Manage the process of the identification, protection and mitigation of impacts on the heritage item. • Liaise with the Sydney Metro Project Manager, Environment Manager and Senior Heritage Advisor. • Assist the Excavation Director, archaeologist or Aboriginal cultural heritage consultant with mitigation and statutory requirements. • Complete Incident Report and review CEMP for any changes that may be required. Proposed amendments to the CEMP if any changes are required.
Contractor's Project Manager	Ensure all aspects of this Procedure are implemented. Advise the Contractor/Supervisor to recommence work if all applicable requirements have been satisfied and the Contractor Environmental Manager/ Excavation Director, archaeologist or aboriginal cultural heritage consultant has approved recommencement of work.
Contractor's Excavation Director/ archaeologist or Aboriginal cultural heritage consultant	Provide expert advice to the Contractor and Sydney Metro Environment Manager on find identification, significance, mitigation, legislative procedures and requirements.
Environmental Representative	Ensure compliance with relevant approvals (new and existing) and the Construction Environment Management Plan.
Sydney Metro Environment Manager	Notify the Director Project Environment, Sustainability & Planning of find and help support Contractor with managing Incident Reporting.
Sydney Metro Senior Heritage Advisor	Provide expert advice to Sydney Metro Environment Manager and project as required.

5. Seeking advice

Advice on this Procedure should be sought from the Sydney Metro Environment Manager in the first instance. Contractors and delivery partners should ensure their own project environment managers are aware of and understand this Procedure.

Technical archaeological or heritage advice regarding an unexpected heritage item should be sought from a suitably qualified and experienced archaeologist/Aboriginal heritage consultant.

6. Related documents and references

Related documents and references
• SM-20-00099495 Exhumation Management Procedure • SM-17-00000096 Environmental Incident Classification and Reporting Procedure • SM-21-00280658 Unexpected Heritage Find Recording Form • SM-21-00280680 Archaeological Heritage Advice Checklist • SM-21-00280708 Unexpected Heritage Discovery Notification Letter Template • 3TP-SD-015/7.0 Transport for NSW Guide to Environmental Control Map • Roads and Maritime Services, November 2015, Unexpected Heritage Items Heritage Procedure 02 • SM-17-00000203 Sydney Metro Glossary • Department of Environment, Climate Change and Water 2010, Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 • Department of Environment, Climate Change and Water 2010, Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW • Heritage Branch Department of Planning 2009, Assessing Significance for Historical Archaeological Sites and 'Relics'

7. Superseded documents

Superseded documents
There are no documents superseded as a result of this document.

8. Document history

Version	Date of approval	Notes
1.1	June 2017	Incorporates Environmental Representative comments
1.2	-	Amends p13 step 8 reference to s146
1.3	-	Incorporates Planning Mods 1-4 including amended CoA E20
1.4	March 2018	Incorporates Environmental Representative comments
2.0	-	Removes SSI 15-7400 COA reference
3.0	-	Revises definitions
3.1	-	Revises procedure
3.2	-	Revises roles and responsibilities
3.3	-	Minor edits and corrections
4.0	16 August 2021	Revises definitions and procedure; references the Sydney Metro Exhumation Management Procedure v5 with amendments throughout for consistency with that document. Updates to related documents and references.

Appendix A: Examples of unexpected heritage finds

Figure 2: Aboriginal stone artefacts found at the Wickham Transport Interchange, 2015

Figure 3: Aboriginal artefacts (shell material) found at the Wickham Transport Interchange, 2015

Figure 4: 1840s seawall and 1880s retaining wall uncovered at Balmain East, 2016

Figure 5: Sandstone pavers uncovered at Balmain East, 2016

Figure 6: Platform at Hamilton Station classified as a 'work' by the project archaeologist, Wickham Transport Interchange project, 2015

Figure 7: Sandstone flagging and cesspit, Wynyard Walk project, 2014

Figure 8: Chinese Ming Dynasty pottery and English porcelain/pottery dating back to the early nineteenth century, Wynyard Walk project, 2014

Figure 9: Pottery made by convict potter Thomas Ball during the early settlement period, Wynyard Walk project, 2014

Figure 10: Top left hand picture continuing clockwise: Stock camp remnants (Hume Highway Bypass at Tarcutta); linear archaeological feature with post holes (Hume Highway Duplication), animal bones (Hume Highway Bypass at Woomargama); cut wooden stake; glass jars, bottles, spoon and fork recovered from refuse pit associated with a Newcastle Hotel (Pacific Highway, Adamstown Heights, Newcastle area)

Figure 11: Culturally modified stone discovered on Main Road 92, about two kilometres west of Sassafras. The remaining images shown a selection of stone artefacts retrieved from test and salvage archaeological excavations during the Hume Highway Duplication and Bypass projects from 2006-2010

Appendix B: Unexpected heritage find recording form

Refer to SM-21-00280658 Unexpected Heritage Find Recording Form.

Appendix C: Photographing unexpected heritage items

Photographs of unexpected finds in their current context (*in situ*) may assist archaeologists/Aboriginal heritage consultants to better identify the heritage values of the item. Emailing good quality photographs to specialists can allow for better quality and faster heritage advice. The key elements that must be captured in photographs of the item include its position, the item itself and any distinguishing features. All photographs must have a scale (ruler, scale bar, mobile phone, coin etc.) and a note describing the direction of the photograph.

C1: Context and detailed photographs

It is important to take a general photograph (below left) to convey the location and setting of the item. This will add value to the subsequent detailed photographs also required (below right – labelled Figure 2).

Removal of the item from its context (e.g. excavating from the ground) for photographic purposes is not permitted.

C2: Photographing distinguishing features

Figure 2: Close up detail of the sandstone surface showing material type, formation and construction detail. This is essential for establishing date of the feature.

Where unexpected items have a distinguishing feature, close up detailed photographs must be taken of these features, where practicable. In the case of a building or bridge, this may include diagnostic details architectural or technical features. See images next page, labelled Figures 3 and 4 for examples.

Figure 3: Ceramic bottle artefact with stamp.

Figure 4: Detail of the stamp allows '*Tooth & Co Limited*' to be made out. This is helpful to a specialist in gauging the artefact's origin, manufacturing date and likely significance.

C3: Photographing bones

The majority of bones found on site will be animal bones often requiring no further assessment (unless they are in archaeological context). However, if bones are human, the police must be contacted immediately (see Appendix E for detailed guidance). Taking quality photographs of the bones can often resolve this issue quickly. The project archaeologist can confirm if bones are human or non-human if provided with appropriate photographs.

Ensure that photographs of bones are not concealed by foliage (example below left, labelled Figure 5) as this makes it difficult to identify. Minor hand removal of foliage can be undertaken as long as disturbance of the bone does not occur. Excavation of the ground to remove bone(s) should not occur, nor should they be pulled out of the ground if partially exposed.

Where sediment (adhering to a bone found on the ground surface) conceals portions of a bone (example below right, labelled Figure 6) ensure the photograph is taken of the bone (if any) that is not concealed by sediment.

Figure 5: Bone concealed by foliage.

Figure 6: Bone covered in sediment

Ensure that all close up photographs include the whole bone and then specific details of the bone (especially the ends of long bones, the *epiphysis*, which is critical for species identification). The images below (labelled Figure 7, left and Figure 8, right) are examples of good photographs of bones that can easily be identified from the photograph alone. They show sufficient detail of the complete bone and the epiphysis.

Figure 7: Photograph showing complete bone.

Figure 8: Close up of a long bone's epiphysis.

Appendix D: Archaeological/heritage advice checklist

Refer to SM-21-00280680 Archaeological Heritage Advice Checklist.

Appendix E: Template notification letter

Refer to SM-21-00280708 Unexpected Heritage Discovery Notification Letter Template.

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Hugh Chapman
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Sydney Metro
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22 December 2022

Ref: 201209(a)_SEMP_R1

Dear Hugh

RE: Endorsement of the Sydney Metro Western Sydney Airport, Site Establishment Management Plan Advanced and Enabling Works, SSTOM Project Office (SPO)

Thank you for providing the Sydney Metro Western Sydney Airport, Site Establishment Management Plan Advanced and Enabling Works, SSTOM Project Office (SPO) (Rev 1), dated 21 December 2022 (the SEMP) for Environmental Representative (ER) review and endorsement, as required by Conditions of Approval A18, A19 and A20 of the Sydney Metro Western Sydney Airport project approval (SSI 10051 July 23, 2021):

It is noted that:

- Previous versions of the document have been reviewed and updated following comments from the ER.
- Sydney Metro have also reviewed and commented on the document.
- Evidence of consultation records has been provided to the ER in the SEMP.
- Following the above reviews, the document is considered to contain the information and consultation required.

Accordingly, as an approved ER for the Sydney Metro Western Sydney Airport project, I now consider the SEMP consistent with the requirements in or under the Infrastructure Approval and the undertakings made in the documents listed in Condition A1.

Yours sincerely

Alex Gale
Environmental Representative – Sydney Metro Western Sydney Airport