

# Visual Amenity Management Plan

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## Western Sydney Airport – Surface and Civil Alignment Works

<b>Project Name</b>	Sydney Metro – Western Sydney Airport, Surface and Civil Alignment Works
<b>Project Number</b>	N81150
<b>Revision Date</b>	19/10/2022
<b>Revision</b>	01
<b>Document Number</b>	SMWSASCA-CPU-1NL-NL000-EV-PLN-000005

### Document Approval

Rev.	Date	Prepared by	Reviewed by	Approved by	Remarks
A	27/06/2022				First Draft
B	23/08/2022				See Revision table below
C	17/10/2022				See Revision table below
01	19/10/2022				See Revision table below
<b>Signature</b>					

## Distribution and Authorisation

### Document Control

The CPBUI JV Project Director is responsible for ensuring this plan is reviewed and approved. The Project Director is responsible for updating this plan to reflect changes to the project, legal and other requirements, as required.

The controlled master version will be maintained on TeamBinder. All circulated hard copies are deemed to be uncontrolled.

### Amendments

The implementation of this Plan is under the authority of the CPBUI Delegated Authority Matrix. All Contract personnel will perform their duties in accordance with this Plan, supporting plans, and related procedures.

### Revision Details

Rev.	Details
A	First Draft
B	Revised to address Sydney Metro and ER comments
C	Revised to address Sydney Metro and ER comments
01	Issued for Construction. All review comments closed by Sydney Metro

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## Abbreviations and definitions

Refer to Definitions, Abbreviations and Acronyms, Sydney Metro – Western Sydney Airport Surface Civil and Alignment Works Package

Table 1 – Abbreviations and definitions

Abbreviation	Description
Airports Act	<i>Airports Act 1996</i>
Ancillary facility	A temporary facility for construction of the CSSI including an office and amenities compound, construction compound, material crushing and screening plant, materials storage compound, maintenance workshop, testing laboratory and material stockpile area and parking facilities
AS/NZS	Australian Standard/New Zealand Standard
CEMF	Sydney Metro Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CoA	Ministers Condition of Approval
Condition	Planning Minister's Conditions of Approval
CPB	CPB Contractors Pty Ltd
CPBUI JV	CPB Contractors Pty Limited and United Infrastructure Pty Limited Joint Venture
CPTED	Crime Prevention Through Environmental Design
CSSI	Critical State Significant Infrastructure
DAWE	Department of Agriculture, Water and the Environment
DPE	Department of Planning and Environment
ECM	Environmental Control Maps
EIS	Environmental Impact Statement
EMS	Environmental Management System
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
EPA	NSW Environment Protection Authority
ER	Environmental Representative
ISC	Infrastructure Sustainability Council
LEP	Local Environment Plan
Minister	Minister of the NSW Department for Planning and Public Spaces
NASF	National Airports Safeguarding Framework
PMS	Project Management Systems
Principal, the	Sydney Metro
Project, the	Sydney Metro Western Sydney Airport
REMM	Revised Environmental Mitigation Measure
SCAW	Western Sydney Airport Surface and Civil Alignment Works
SM WSA	Sydney Metro Western Sydney Airport
SSI	State Significant Infrastructure
UI	United Infrastructure Pty Limited
WSI	Western Sydney International

# Part A Overview

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## 1. Introduction

### 1.1. Purpose and application

This Visual Amenity Management Sub-plan (this Sub-plan) forms part of the Construction Environmental Management Plan (CEMP) within the NSW state jurisdiction for the Sydney Metro - Western Sydney Airport Surface Civil and Alignment Works (SCAW). CPB Contractors and United Infrastructure Joint Venture (herein referred to as CPBUI JV) were awarded the design and construction of the SCAW project by Sydney Metro in March 2022.

This Sub-plan describes how CPBUI will minimise and manage visual impacts throughout the delivery of SCAW off-airport project. These potential impacts will require management and mitigation in accordance with relevant legislation and government policies.

This Sub-plan must obtain endorsement of the project Environmental Representative (ER) as being in accordance with the SSI Planning Approval and must be submitted no later than one month before the commencement of construction. Construction is not to commence until the CEMP and all required Sub-plans and Monitoring Programs have been endorsed by the ER and/or approved by the Department of Planning and Environment (DPE).

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

- Critical State Significant Infrastructure (CSSI) 10051 Planning Approval (dated 23 July 2021)
- Sydney Metro Western Sydney Airport – CSSI Staging Report (Revision 6.0) (Staging Report)
- AS/NZS ISO 14001:2016 Environmental Management Systems – Requirements with guidance for use
- Sydney Metro Construction Environmental Management Framework (CEMF)
- Environmental Impact Statement (EIS) and Revised Environmental Mitigation Measures (REMMs) from Section 7 of the Submissions Report
- Contractual requirements, including the SCAW Design and Construction Deed and General and Particular Specifications
- Applicable legislation.

### 1.2. Background

The Sydney Metro Western Sydney Airport will 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) and the growing region.

The Sydney Metro Western Sydney Airport EIS was prepared in October 2020 to assess the impacts of construction and operation of the Project and was placed on public exhibition between 21 October 2020 and 2 December 2020. The Project was declared a Critical State Significant Infrastructure (CSSI) Project and is listed in Schedule 5 of *State Environmental Planning Policy (State and Regional Development) 2011*.

The Sydney Metro Western Sydney Airport was approved by the Minister for Planning and Public Spaces on 23 July 2021 (SSI 10051) under section 5.19 of the *NSW Environmental Planning and Assessment Act 1979* (EP&A Act).

### 1.3. Project description

The Project will be undertaken on Darug Country and will form part of the future Western Parkland City. The Project involves the construction and operation of a new 23km metro rail line that extends from the existing Sydney Trains suburban T1 western line (at St Marys) in the north to the Aerotropolis (at Bringelly) in the south. The alignment includes a combination of tunnels and civil structures, including viaducts, bridges, and surface and open-cut troughs between the two tunnel sections. The Project also includes six new metro stations, and a stabling and maintenance facility and operational control centre at Orchard Hills. The SCAW package is the second major contract package to be procured for the Project.

The successful and timely completion of the SCAW package is critical to the subsequent construction activities and ultimate completion of the entire Project.

### 1.3.1. SCAW scope of works

The scope for the SCAW package includes approximately 10.6km of alignment up to the underside of track formation from Orchard Hills to the Western Sydney International (WSI) airport. This includes approximately:

- 3.6 kilometre of viaduct
  - 400 metres of viaduct over Blaxland Creek
  - 660 metres of viaduct over the Patons Lane area and un-named creek
  - 2.5km of viaduct in the Luddenham Road area including across the Warragamba pipeline, at Luddenham Station, across Luddenham Road and across Cosgrove Creek
- 209 metres of bridges
  - A bridge, approximately 187m long, over the proposed M12 Motorway
  - A bridge, approximately 22m long, over the drainage swale on the WSI airport site
- 6.9km of at-grade alignment
  - 600m at Orchard Hills, south of Lansdowne Road
  - 1.6km alongside the stabling maintenance facility in Orchard Hills
  - 900m to the north of the Warragamba pipelines
  - 1.1km north of the proposed M12 motorway
  - 1.4km south of the proposed M12 Motorway on Elizabeth Drive
  - 1.3km within the Airport site from the northern boundary to the Airport Business Park Station
- Temporary and permanent access roads.

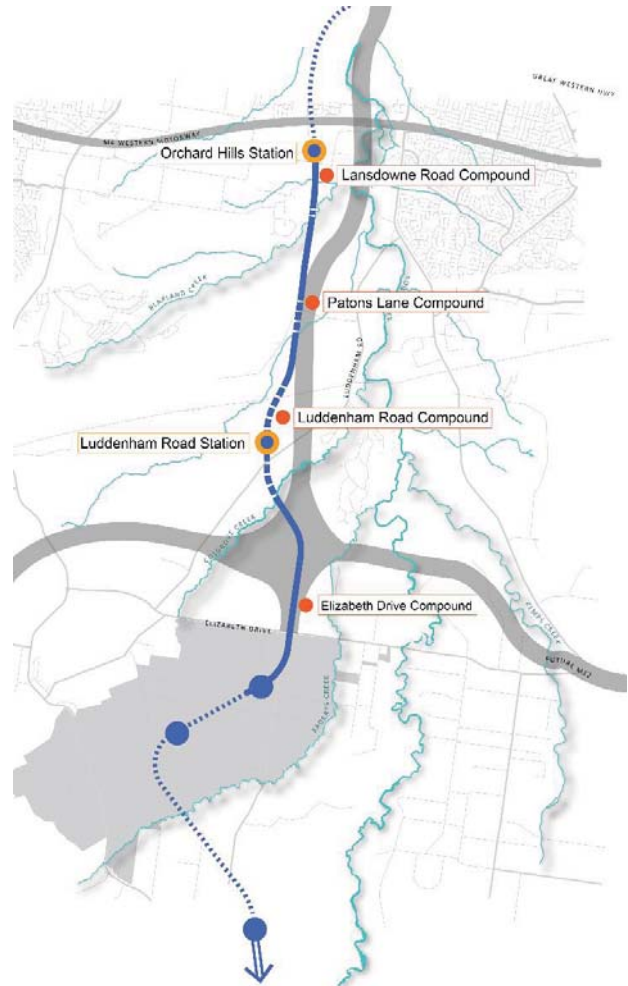


Figure 1 – SCAW Project scope

### 1.3.2. SCAW construction methodology

Activities that will be undertaken during construction are summarised in Table 2 below.

Table 2 – Activities during construction

Works	Activities
Early works	<ul style="list-style-type: none"> <li>▪ Investigation works – survey, geotechnical, contamination and utilities</li> <li>▪ Establishment of temporary ancillary facilities, construction site fencing, signage and lighting</li> <li>▪ Pre-clearing vegetation surveys and setting up environmental ‘no-go’ zones</li> <li>▪ Stockpiling of imported spoil for the stabling and maintenance facility</li> </ul>
Earth works	<ul style="list-style-type: none"> <li>▪ Installation of environmental controls</li> <li>▪ Vegetation clearing</li> <li>▪ Stripping, stockpiling and management of topsoil and unsuitable material</li> <li>▪ Embankment and cutting construction, including the improvement layers/treatments, general fill, structural fill zone and capping layers</li> <li>▪ Importation and reuse of fill materials</li> <li>▪ Placing, compacting and finishing of rail alignment sub-base and base layers</li> <li>▪ Dewatering and backfilling farm dams</li> <li>▪ Preparation of piling pads.</li> </ul>
Bridge works	<ul style="list-style-type: none"> <li>▪ Installation of environmental controls</li> <li>▪ Substructure construction from cast in-situ construction with the general sequence of: <ul style="list-style-type: none"> <li>– Bored pile construction (mono pile)</li> <li>– Pile cap (four) construction with localised excavation at Luddenham Station</li> <li>– Pier and headstock construction</li> </ul> </li> <li>▪ Construction of the viaduct structures through the placement of precast concrete segments using a crawler crane</li> <li>▪ Construction of two bridges using precast Super T.</li> </ul>
Drainage works	<ul style="list-style-type: none"> <li>▪ Construction of table drains</li> <li>▪ Installation of culverts and other drainage structures</li> <li>▪ Construction of temporary diversion channels</li> <li>▪ Construction of temporary watercourse crossings such as causeways</li> <li>▪ Installation of scour protection measures.</li> </ul>



## 2. Structure of this Plan

### 2.1. Plan Purpose and Objectives

This Sub-plan forms part of the Project Management System (PMS). It is part of a suite of plans that together outline how the SCAW package will manage waste during construction to ensure an integrated approach to meeting contract requirements.

In addition to the Project Management Plan, other Project Plans that interface with this Sub-plan include:

- CEMP
- Community Communication Strategy
- Flora and Fauna Management Sub-plan
- Waste Management Sub-plan
- Quality Management Plan

This plan has the following structure:

<b>Part A: Overview</b>	<p>This section clearly defines:</p> <ul style="list-style-type: none"> <li>▪ Section 1: Purpose, Background/Context, Objectives and Targets and Related Documents</li> <li>▪ Section 2: Structure of This Plan</li> <li>▪ Section 3: Legal and Other Requirements</li> <li>▪ Section 4: Aspects and Impacts</li> <li>▪ Section 5: Crime Prevention Through Environmental Design</li> <li>▪ Section 6: Visual Amenity Management Controls</li> </ul>
<b>Part B: Implementation Plan</b>	<p>This section outlines in detail the key processes and systems to support implementation of environmental management outcomes for the project:</p> <ul style="list-style-type: none"> <li>▪ Element 1: Training</li> <li>▪ Element 2: Monitoring and Reporting</li> <li>▪ Element 3: Auditing, Review and Improvement</li> <li>▪ Element 4: Project Specific Requirements</li> </ul>
<b>Part C: Appendices</b>	<p>This section includes appendices and annexures providing additional detail that support this Sub-plan.</p>

#### 2.1.1. Related Documents

As a Sub-plan to the CEMP, Table 3 shows the interrelationships with other project plans and documents.

*Table 3 – Interface Plans*

Other project documents	Description
Community Consultation Strategy	Details the community and stakeholder consultation including enquiry and complaints management requirements for the project based on the Sydney Metro Overarching Community Consultation Strategy developed to address CoA B1.
On Airport CEMP and Sub-plans	Details requirements for environmental management on the Western Sydney Airport. This is a Sydney Metro document produced for the works being undertaken on Commonwealth Land
Flora and Fauna Management Plan	This Plan identifies the management measures relating to tree management, and general house-keeping in regard to weed management.
Waste Management Plan	Identifies management measures in relation to general housekeeping of the construction site/s, including litter.

## 2.1.2. Objectives and Targets

Section 11.1 (a) of the CEMF sets out the following management objectives relevant to SCAW for construction visual amenity management, detailed in Table 4. This Sub-plan has been prepared in accordance with Section 3.5a(iv) and 11.2a of the CEMF, and it details how the performance outcomes and the applicable SCAW requirements and mitigation measures will be implemented during delivery.

The objective of this Sub-plan is to comply with all SCAW project requirements including applicable Project Planning Approval conditions (SSI 10051) and REMMs, and ensure visual amenity management controls are in place and are effective and properly maintained, and ensure compliance with the principles of Crime Prevention Through Environmental Design (CPTED). Refer to Section 6 for the visual amenity management controls that will be implemented to ensure that all works are undertaken in compliance with the SCAW requirements (Element 4: Project Specific Requirements).

Table 4 – Objectives and targets

CEMF Objectives	Targets	Measurement Tool
Minimise impacts on existing landscape features as far as feasible and reasonable;	Undertake 100 % of inspections at the frequency specified in this Plan  100 % of complaints regarding landscape and visual amenity are investigated and responded to within 48 hours	Inspection records Archival Report Monitoring records Audit Reports
Ensure the successful implementation of the Landscape Design;	N/A - the SCAW scope does not include implementation of the Landscape Design.	
Reduce visual impact of construction to surrounding community; and	Undertake 100 % of inspections at the frequency specified in this Plan Remove graffiti and advertising material at temporary construction ancillary facilities within specified timeframes. 100 % of complaints regarding landscape and visual amenity are investigated and responded to within 48 hours	
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 CEMP.	Not applicable to the off-airport works subject to this Sub-plan	This Plan does not address on-airport works.

## 3. Legal and Other Requirements

### 3.1. Legislation and Related Requirements

Key legislation relevant to visual amenity includes:

- *NSW Environmental Planning and Assessment Act 1979* (EP&A Act)
- *Protection of the Environment Operations Act 1997* (POEO Act)

Refer to Section 4 of the CEMP for further details of the relevant legislation.

### 3.2. Project Compliance Requirements

All works to be delivered for SCAW have been assessed and approved under the EP&A Act for the Critical State Significant Infrastructure application number 10051. The on-airport works are a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) relating to approval EPBC 2019/8541.

There are three (3) principal statutory schemes that govern the planning and assessment process for the Sydney Metro Western Sydney Airport (SM-WSA) project:

Commonwealth:

- SCAW works have been assessed and approved under the Airports Act 1996 (Airports Act) for works located on Commonwealth land within the boundary of the Western Sydney International Airport (on-airport).
- SCAW works have been assessed and approved as a controlled action by the Department of Agriculture, Water and the Environment (DAWE) under Part 9 of the EPBC Act was obtained by Sydney Metro on 3 June 2021 (EPBC2020/8687) for the impacts on threatened species and communities and Commonwealth Land (off-airport).

State:

- SCAW works have been assessed and approved via number of applications under Division 5.2 of the EP&A Act and are classified as Critical State Significant Infrastructure (SSI 10051) (off-airport).
- Detailed environmental assessments have been carried out to gain the necessary Commonwealth and State planning approvals.

#### 3.2.1. Project Specific Requirements:

The Project Specific Requirements contains a summary of the key compliance requirements relevant to visual amenity management measures which are applicable to SCAW. This includes relevant CoA, REMMs, CEMF requirements, EIS performance outcomes and contractual requirements.

### 3.3. Guidelines and Standards

Additional guidelines and standards relating to the management of visual amenity include:

- Australian Standard (AS) 4282:1997 Control of the obtrusive effects of outdoor lighting
- Crime Prevention Through Environmental Design (CPTED)
- AS4970 Protection of trees on development sites and adjoining properties
- National Airports Safeguarding Framework (NASF) Guideline E: Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports; and
- NASF Guideline C: Managing the risk of wildlife strikes in the vicinity of airports.

## 4. Aspects and Impacts

### 4.1. Construction

The existing environment was described in Chapter 20 of the EIS. The SCAW construction sites and a description of the activities and elements likely to interact with nearby sensitive receivers and surrounding localities are detailed in Table 5.

### 4.2. Impacts

Chapter 20 of the EIS identified the key potential impacts requiring mitigation during construction in relation to landscape and visual amenity are:

- temporary moderate adverse landscape and visual impacts during construction due to the presence of construction activity

In addition, aspects and the potential for impacts have been considered during a project wide risk assessment which is included as Appendix C5 of the CEMP. The risk assessment has been undertaken to identify the requirement for establishing appropriate control measures. Informed by the EIS, Submissions Report, and the SSI 10051 Planning Approval, the risk assessment included the identification of mitigation measures and primary controls for each environmental management category. Refer to Section 6 for mitigation and management measures that will be implemented to minimise landscape character and visual impacts during the delivery of the SCAW. Impacts to Heritage items will be managed in accordance with the Non-Aboriginal Heritage Management Sub-plan.

Table 5 – SCAW construction impacts

Location	Existing Environment	SCAW construction activities and elements that would be visible
<p>Orchard Hills stabling and maintenance facility off-airport construction corridor</p>	<p>The landscape character area varies from rolling semirural areas in the north to a flat open rural landscape in the south and has been altered for agricultural practices. Visible infrastructure including a high voltage powerline corridor, water supply pipelines and landfill facility also contributes to a reduced cohesiveness of the rural landscape character</p>	<ul style="list-style-type: none"> <li>▪ Site establishment works such as fencing, establishment of internal access road, hardstand areas and installation of demountable buildings and amenities for the stabling and maintenance facility</li> <li>▪ Establishment of temporary ancillary facility at Patons Lane</li> <li>▪ Vegetation removal including clearing and grubbing to establish the stabling and maintenance facility</li> <li>▪ Establishment of temporary access tracks for the stabling and maintenance facility</li> <li>▪ Temporary stockpiling of topsoil and fill material at the stabling and maintenance facility</li> <li>▪ Use of construction compounds on-site parking, material/plant storage and laydown areas.</li> </ul>
<p>Luddenham Road Off-airport construction corridor</p>	<p>This landscape is characterised by broad open rural grazing areas located on undulating terrain with patches of bushland and includes South Creek, Badgerys Creek, Cosgroves Creek and Oakey Creek. Key existing features include Luddenham Road, Twin Creeks residential estate, Elizabeth Drive and local heritage property McGarvie-Smith Farm.</p>	<ul style="list-style-type: none"> <li>▪ Site establishment works such as fencing, establishment of internal access road, hardstand areas and installation of demountable buildings and amenities for the off-airport construction corridor compound at Elizabeth Drive and M12 bridge</li> <li>▪ Vegetation clearing including clearing and grubbing to establish the off-airport construction corridor compound at Elizabeth Drive</li> <li>▪ Use of construction compounds on-site parking, material/plant storage and laydown areas.</li> <li>▪ Main works including bulk excavation, viaduct and bridge construction.</li> </ul>

## 5. Crime Prevention Through Environmental Design

The principle of CPTED will be incorporated throughout the design and construction of temporary works during the SCAW. CPTED aims to create the perception that the risk of committing the crime is greater than the likely benefits. Key principles adopted include:

- increasing the possibility of detection, challenge and capture
- increasing the effort required to commit crime
- reducing the potential rewards of crime by minimizing, removing or concealing ‘crime benefits’, and
- removing conditions that create confusion about required norms of behaviour.

The CPTED principles and prevention measures applied to the SCAW worksites and temporary works are detailed in Table 6. Visual amenity controls that reflect the CPTED principles are detailed in Section 6.

Table 6 – Application of CPTED

Principle	Prevention	How Addressed
Surveillance	The effect of having high levels of surveillance often prevents offenders from committing crime. Designing a public space should utilise natural, physical features that will enhance visibility and promote social interaction between users of the area. Effective surveillance includes both natural and technical resources. By limiting potential escape routes and places to hide, the design reduces the appeal of crime by making the offender feel uneasy.	Technological and/or personnel-based surveillance and monitoring systems will be used at the SCAW worksites. Details will be defined and implemented on a case by case basis for each site and considering interface contractors accessing the site. Where hoarding and noise walls are required, they will be set up in a way that maximizes natural surveillance as much as practicable. Adequate levels of lighting will be provided around the worksites to increase visibility at night, where it does not negatively impact the surrounding community or light spill. Each construction site will have a sign in point at the access/egress points and will be managed by a gate person. Construction site layouts are provided in Appendix C3 of the CEMP.
Access control	The movement of people can be influenced by having physical and symbolic barriers, increasing the effort required to commit a crime. By having legible and clear boundary markers, people can easily identify where they are permitted to go or not go. Such barriers should create a hostile environment that will discourage the use of the area.	Application to SCAW construction sites: <ul style="list-style-type: none"> <li>▪ Worksites will be protected using industry standard physical barriers and clear delineation of the boundaries.</li> <li>▪ Fencing/hoarding is to be set away from fixed infrastructure where possible, so that it does not create access to climbing onto buildings or structures.</li> <li>▪ Requirements for pruning of vegetation adjacent to the worksites will be assessed to reduce the risk of climbing over hoarding.</li> <li>▪ Each worksite will have vehicle and pedestrian access points</li> </ul>

Principle	Prevention	How Addressed
		<p>with adequate access control (e.g. ID checkpoints, sign-in and sign-out).</p> <p>Construction site layouts are provided in Appendix C3 of the CEMP.</p>
Territorial reinforcement	<p>Community ownership of public spaces promotes social control and encourages people to gather and enjoy that space, increasing the number of pedestrians that can witness a potential crime. The principle of territorial reinforcement is designed to make general users feel safe and make potential offenders aware of the risk of prosecution.</p>	<p>Application to SCAW construction sites:</p> <ul style="list-style-type: none"> <li>▪ Surrounding community will be notified and updated as required during the progress of SCAW project in accordance with the Community Communication Strategy.</li> <li>▪ Project signage will be displayed around the worksites.</li> <li>▪ The SCAW worksites will be delineated with boundary fencing, approved external banners and project label/signage</li> <li>▪ Temporary ancillary facilities will have clear ingress/egress points and sign in locations, and be clearly signed/labelled.</li> </ul>
Maintenance and housekeeping	<p>Implementing a maintenance and cleaning regime to ensure areas are kept clean and tidy, with materials and equipment secured to prevent crimes of opportunities. Graffiti will be removed promptly from hoardings and other aspects of construction sites, and the design of construction sites will be such that they do not detract from the amenity of that locality.</p>	<p>In accordance with VMM7, CPBUI must regularly monitor and remove graffiti within the following timeframes:</p> <ul style="list-style-type: none"> <li>▪ offensive graffiti must be cleaned, (removed) or covered within 24 hours</li> <li>▪ highly visible yet non-offensive graffiti must be cleaned (removed) or covered within one week</li> <li>▪ graffiti that is neither offensive nor highly visible must be cleaned (removed) or covered within one month, and</li> <li>▪ any advertising material including bill posters must be removed or covered within 24 hours.</li> </ul>



## 6. Visual Amenity Management Controls

### 6.1. Visual Amenity Mitigation Measures

Mitigation measures to address SCAW requirements are provided in Table 7. The principles of CPTED considered in Section 5 are addressed in the measures provided in Table 7.

#### 6.1.1. Design of Temporary Works at Construction Sites

Development of the temporary works design will take into account the CPTED principles and application opportunities identified in Section 5.

Where practicable, the elements within construction sites will be located to minimise visual impacts on adjacent receivers. The selection of materials and colours of temporary structures and compounds will aim to minimise their visual prominence. Where required an experienced urban or landscape designer (from within the CPBUI Design team) will be engaged to provide input into temporary works developed as part of SCAW.

Visual mitigation will be implemented as soon as feasible and reasonable and will remain in place for the duration of the SCAW project.

Refer to construction site layouts provided in Appendix C5 of the CEMP.

#### 6.1.2. Site Lighting

Where necessary temporary site lighting, for security purposes and/or night works will be installed and operated in accordance 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.

A lighting strategy will be developed on a risk-based approach and depending on the works being undertaken (eg. out of hours works). Should a lighting strategy be prepared, it will be assessed during detailed construction planning for each site to minimise the potential for glare or residual light spill at adjoining or adjacent residential receivers. Cut-off and directed lighting will be used where required to ensure glare and light trespass/spill are minimised.

In accordance with CoA E64, where residual light spill impacts are identified, CPBUI will identify adaptive mitigation measures in consultation with the affected resident (refer to Table 7).

#### 6.1.3. Hoardings and Boundary Fencing

Boundary screening will be erected around ancillary facilities that are adjacent to sensitive land users in accordance with CoA A23 for the duration that the ancillary facility is in use unless otherwise agreed with relevant affected residents, business operators or landowners. Boundary screening will minimise visual impacts on adjacent sensitive land users in accordance with CoA A24.

There are no sensitive land use/s identified adjacent to SCAW ancillary facilities. The construction site layouts are provided in Appendix C3 of the CEMP.

Elements such as ancillary facility screening will be design and maintained to minimise impacts on landscape character and visual amenity including selection of colour and materials that reflect the context within which the site is located, wherever practicable (in accordance with CoA E62). SCAW boundary screening around ancillary facilities will comprise the following:

- SM-WSA Project branded shade cloth on 1.8m high perimeter fencing
- Where practicable, existing vegetation around the perimeters will be retained and protected to act as a visual screen (refer to Section 6.3).

In accordance with the Deed and General Specification requirements, banners for the external faces of hoardings and fences will be produced in accordance with designs provided by Sydney Metro and will be consistent with the Sydney Metro Brand Guidelines.

In accordance with Condition A47 signage will be installed on site boundary fencing prior to commencement of construction to provide the community with the CSSI project name and application number, telephone number, postal address and email address. Banners and signage will be installed and maintained by CPBUI for the duration of construction.



## 6.2. Site maintenance and housekeeping

All site facilities, including hoardings, will be maintained in excellent condition, and must remain fit for their intended purpose for the project duration.

All SCAW construction sites, and other areas affected by SCAW construction activities, will be kept clean and tidy and free of refuse. This includes the regular removal of:

- Rubbish
- Litter
- Graffiti
- Surplus material
- Weeds

Rubbish or loose items will be frequently removed from the construction sites to avoid extended storage.

All site facilities, hoardings and fencing, as well as banners and signage on hoardings and fencing must be maintained free of graffiti and dust build up, and any advertising material not authorised by Sydney Metro. As set out in Element 2: Monitoring and Reporting, regular site inspections will be undertaken to ensure these structures are free of graffiti and unauthorised advertising material. External banners will be replaced every 12 months, if their condition has deteriorated such that they are no longer appropriate for their intended use e.g. if images are faded, wording no longer legible or banners are ripped.

If hoarding banners/signs become irreparably damaged, CPBUI will install replacement banners or fencing signage within 24 hours of this damage occurring, or as soon as practicable.

## 6.3. Vegetation Management

Worksite layouts will be refined to conserve vegetation where practicable. Vegetation adjacent to or within construction sites that is to be retained and protected will be appropriately demarcated (e.g. fenced, flagged, etc.), and signage will be erected identifying these areas as 'Tree Protection Zone – No Access', in accordance with AS 4970–2009. These areas will also be clearly marked on Site Environment Plans (SEPs) as 'Tree Protection Zone – No Access'.

The management and disposal of weeds will be undertaken in accordance with the Flora and Fauna Management Sub-plan.

Toolbox talks will be delivered throughout delivery of the SCAW and will include the topic of site environmental plan/s and compliance with designated no-go zones. Refer to Element 7 of the CEMP for further detail regarding training and awareness.

Table 7 – Landscape Character and visual amenity mitigation measures

Ref	Requirement	Timing	Responsibility	Source
VMM1	Boundary screening that minimises visual impacts must be erected around ancillary facilities that are adjacent to sensitive land user(s) subject to noise and security requirements for the duration that the ancillary facility is in use unless otherwise agreed with relevant affected residents, business operators or landowners.	Construction	Environmental Manager Site Supervisor Community and Stakeholder Manager	A23, A24
VMM2	Opportunities to retain trees will be identified during detailed construction planning. In the event existing trees are to be retained, they will be protected with suitable tree protection measures prior to the commencement of construction at that location (refer AS 4970 the Australian Standard for Protection of trees on Development Sites and Adjoining Properties).	Construction	Construction Manager Site Supervisor Environmental Manager	REMM LV1, LV2
VMM3	All structures (including site offices, workshop sheds and site hoarding) would be finished in a colour which aims to minimise their visual impact where practicable. This finish is to be applied to all visible fixtures and fittings (such as exposed downpipes) where practicable.	Construction	Project Engineer Site Supervisor Environmental Manager	E62, REMM LV3
VMM4	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 residual lighting impacts on residential receivers for all permanent, temporary and mobile light sources.	Construction	Site Supervisor Community and Stakeholder Manager	E64
VMM5	At the completion of works CPBUI will clear work areas remove plant and machinery from the works area where that area is not required for a subsequent phase or Handover Works.	Construction	Construction Manager Site Supervisor	CEMF 5.4b
VMM6	Hoarding (during construction phase) will be inspected regularly and kept clean and free of dust build up.	Construction	Site Supervisor Environmental Coordinator	CEMF 4.4b
VMM7	CPBUI must undertake regular monitoring and remove graffiti within the following timeframes:	Construction	Site Supervisor Project Engineer	D&C Deed CEMF 4.4b

Ref	Requirement	Timing	Responsibility	Source
	<ul style="list-style-type: none"> <li>▪ offensive graffiti must be cleaned, (removed) or covered within 24 hours</li> <li>▪ highly visible yet non-offensive graffiti must be cleaned (removed) or covered within one week</li> <li>▪ graffiti that is neither offensive nor highly visible must be cleaned (removed) or covered within one month, and</li> <li>▪ any advertising material including bill posters must be removed or covered within 24 hours.</li> </ul>		Construction Manager	

## Part B Implementation Plan

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### Elements and Expectations

Part B of this Sub-plan explains how potential visual amenity impacts during the SCAW Works will be minimised and managed. Compliance with all elements is required at all times to minimise the likelihood of causing unauthorised environmental harm and maximise the uptake of opportunities to reduce environmental impact.

Part B contains the following:

- **Environmental Elements and Expectations:** These describe what is required of CPBUI JV to implement the objectives of the Environment and Sustainability Policy Statement and system requirements:
- **Element** – Key aspects for managing this function in delivering the SCAW Works
- **Expectation** – The outcomes achieved as part of each Element.
- **Requirements:** These are the specific actions required to demonstrate compliance with the Elements and Expectations.
- **Responsibility and Key Contributor:** Designation of responsibility for achieving compliance with the stated Expectation. Key contributors assist/contribute to achieving compliance.
- **Deliverables:** Tangible outcomes produced to demonstrate compliance with the environmental Elements and Expectations.

## Element 1: Training

CPBUI will ensure that SCAW project personnel can competently perform their duties and meet environmental obligations

Expectations	How we will meet the Expectations (minimum requirements)	Responsibility Key Contributor	Deliverables
<p>1.1 All personnel have completed an induction containing relevant environmental information before they are authorised to work on the project</p>	<p>All personnel working on the SCAW will undertake a site induction, which will provide initial training on various environmental aspects. Site personnel will undertake awareness training in relation site planning and visual amenity mitigation measures including general housekeeping and surveillance for dust build-up and graffiti.</p>	<p><b>Senior HR Advisor</b> Environmental Manager Site Supervisors</p>	<p>Induction presentation Induction records Training records</p>
<p>1.2 Toolbox talks are used to reinforce key management requirements and lessons learnt</p>	<p>Toolbox talks will be held regularly during site establishment and throughout construction. They will reinforce and reiterate information from inductions and the requirements of this Sub-plan. Toolbox talks will be undertaken with key site people on visual amenity management measures.</p>	<p><b>Environmental Manager/Coordinator</b> Site Supervisors Environmental Coordinators Project Engineers</p>	<p>Toolbox presentations Toolbox records</p>

## Element 2: Monitoring and Reporting

All staff, employees and subcontractors will actively drive compliant environmental performance of SCAW.

Expectations	How we will meet the Expectations (minimum requirements)	Responsibility Key Contributor	Deliverables
<p>2.1 Worksites are regularly inspected to ensure the adequacy of controls and compliance with the requirements of this Sub-plan</p>	<p>Site Supervisor to undertake daily inspections of worksite to ensure the implementation of VMM7. Details of daily inspections undertaken by the Site Supervisor will be recorded</p> <p>Weekly site environmental inspection to assess the effectiveness of visual amenity management controls including general housekeeping, retained vegetation and boundary fencing. Weekly inspections will be documented and summarised in monthly reports.</p> <p>ER inspections will include review of implementation of the requirements of this Sub-plan.</p> <p>Refer to Element 3 of the CEMP for further detail regarding environmental inspections.</p> <p>Internal and external audits will be undertaken to assess the effectiveness of environmental controls and compliance with SCAW requirements. Refer to Element 12 of the CEMP for further detail regarding SCAW audits.</p>	<p><b>Environmental Manager</b>  <b>Site Supervisors</b>  <b>Environmental Coordinators</b>  <b>ER</b></p>	<p>Environment Inspection Checklists</p> <p>Site supervisor inspection records</p> <p>Site Diary entries</p> <p>ER Reports</p> <p>Audit reports</p>
<p>2.2 Visual amenity reporting</p>	<p>CPBUI will retain inspection records specific to visual amenity management including the identification of issues to be rectified and timing of rectification (in accordance with VMM7).</p> <p>Refer to Element 11 of the CEMP for further detail regarding SCAW document and record management.</p>	<p><b>Environmental Manager</b>  <b>Environmental Coordinators</b>  <b>Site Supervisor</b></p>	<p>Environment Inspection Checklists</p> <p>Site supervisor inspection records</p> <p>Site Diary entries</p>

### Element 3: Auditing, Review and Improvement

CPB will continually improve its environmental systems and performance by monitoring and reviewing their effectiveness

Expectations	How we will meet the Expectations (minimum requirements)	Responsibility Key Contributor	Deliverables
<p>3.1 Audits are undertaken to ensure compliance with the requirements of this Sub-plan</p>	<p>Procedures for corrective actions are addressed in Element 3 of the CEMP. Audits will be performed in accordance with the CEMP and this Sub-plan. Associated documents or procedures will be updated if required. The ER may participate in or conduct audits to ensure the implementation of this Sub-plan and related documents is compliant with what is stated in the documents and the terms of the planning approvals. Refer to Element 12 of the CEMP for further detail regarding SCAW audits.</p>	<p><b>Environmental Manager</b> <b>Environmental Coordinators</b> <b>Sustainability Manager</b> <b>ER</b></p>	<p>Audit Reports Corrective Action Reports</p>
<p>3.2 All non-compliances are reported and actioned</p>	<p>A visual amenity management non-compliance can generally be defined as a failure to comply with the Project Planning Approval. Where a non-compliance is raised as part of an audit or an incident or complaint investigation the audit, incident or complaint report may be used to close out the non-compliance and it is not necessary to raise a separate non-compliance reporting process. Corrective and Preventative Actions may also be raised in accordance with Element 3 of the CEMP.</p>	<p><b>Environmental Manager</b> <b>Sustainability Manager</b> <b>Environmental Coordinators</b> <b>Quality Manager</b></p>	<p>Audit Reports Corrective Action Reports</p>



### Element 4: Project Specific Requirements

No	Requirement	How we will meet the Expectations (minimum requirements)	Responsibility Key Contributor	Timing
CoA 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 6.1.3 Table 7	<b>Environmental Manager</b> Environmental Coordinators Site Supervisor Community and Stakeholder Manager	Construction
CoA A24	Boundary screening required under Condition A23 must minimise visual impacts on adjacent sensitive land use(s).	Section 6.1.3 Table 7	<b>Environmental Manager</b> Environmental Coordinators Site Supervisor Community and Stakeholder Manager	Construction
CoA 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.	Section 6.1.3	<b>Site Supervisor</b> Environmental Manager Environmental Coordinators	Construction
CoA C1	Construction Environmental Management Plans (CEMPs) and CEMP Sub-plans must be prepared in accordance with the Construction Environmental Management Framework (CEMF) included in the documents listed in Condition A1 to detail how the performance outcomes, commitments and mitigation measures specified in the documents listed in Condition A1 will be implemented and achieved during construction.	This Sub-plan	<b>Environmental Manager</b>	Pre-construction



No	Requirement	How we will meet the Expectations (minimum requirements)	Responsibility Key Contributor	Timing
CoA E62	<p>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.</p>	<p>Section 6 Table 7</p>	<p><b>Environmental Manager Environmental Coordinators</b></p>	<p>Construction</p>
CoA E64	<p>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:</p> <ul style="list-style-type: none"> <li>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;</li> <li>b) NASF Guideline E: Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports; and</li> <li>c) NASF Guideline C: Managing the risk of wildlife strikes in the vicinity of airports.</li> </ul> <p>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.</p>	<p>Section 6.1.2 Table 7 <i>Note: This Sub-plan addresses construction and the application of AS4282:2019 Control of the obtrusive effects of outdoor lighting.</i></p>	<p><b>Environmental Manager Environmental Coordinators Site Supervisor</b></p>	<p>Construction</p>
REMM LV1	<p>Opportunities for the retention and protection of existing street trees and trees within the construction sites would be identified during detailed construction planning.</p>	<p>Section 6.3 Table 7</p>	<p><b>Environmental Manager Environmental Coordinators Sustainability Manager Site Supervisor Project Engineers</b></p>	<p>Construction</p>

No	Requirement	How we will meet the Expectations (minimum requirements)	Responsibility Key Contributor	Timing
REMM 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	Section 6.3 Table 7	Environmental Manager Environmental Coordinators Site Supervisor Project Engineers	Construction
REMM 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)	Section 6.1 Table 7	Environmental Manager Environmental Coordinators Project Engineers	Construction
CEMF 3.5a	Subject to Section 3.4(b) the Principal Contractors will prepare issue-specific environmental sub plans to the CEMP which address each of the relevant environmental impacts at a particular site or stage of the project. Issue specific sub plans will include as a minimum... <b>Visual and Amenity Management</b> Some of these sub plans may also be informed by other environmental management documents included in the planning approval, for example the Construction Traffic Management Framework or Construction Noise and Vibration Standard.	This Sub-plan	Environmental Manager	Pre-construction Construction
CEMF 4.4a	Principal Contractors will ensure as a minimum: i. Temporary construction works consider urban design and visual impacts, including:	Section 6.1.3 Table 7 <i>Note: SCAW construction sites will not obscure local businesses</i>	Environmental Manager	Pre-construction

No	Requirement	How we will meet the Expectations (minimum requirements)	Responsibility Key Contributor	Timing
	<ul style="list-style-type: none"> <li>▪ Artwork, graphics and images to enhance the visual appearance of temporary works in high visibility locations;</li> <li>▪ Project information to raise awareness on benefits, explain the proposed works at each site and provide updates on construction progress;</li> <li>▪ Community information, including contact numbers for enquiries / complaints;</li> <li>▪ <del>Signage and information to mitigate impacts on local businesses which may be obscured by the construction site;</del></li> <li>▪ Sydney Metro advertising / public awareness campaigns; and</li> <li>▪ Logos / branding, including Sydney Metro, NSW and Commonwealth Government, and Contractor branding</li> </ul>		Environmental Manager	Pre-construction
CEMF 4.4b	<p>ii. The design of all temporary works will require Sydney Metro approval in relation to urban design and visual impacts and Sydney Metro will stipulate the design of hoarding artwork, including:</p> <ul style="list-style-type: none"> <li>▪ Sydney Metro advertising / public awareness campaigns; and</li> <li>▪ Logos / branding, including Sydney Metro, NSW and Commonwealth Government, and Contractor branding.</li> </ul>	Section 6.1.3	Environmental Manager	Pre-construction
CEMF 4.4c	<p>Construction hoardings, scaffolding and acoustic sheds will be regularly inspected and kept clean and free of dust build up. Graffiti on construction hoardings, scaffolding or acoustic sheds will be removed or painted over promptly.</p> <p>The principles of Crime Prevention through Environmental Design (CPTED) will be applied to all works, including temporary works that have a public interface.</p>	Table 7	Environmental Manager Environmental Coordinators Site Supervisor Project Engineers Environmental Manager	Construction
CEMF 4.4c		Section 5 Table 7	Environmental Manager	Pre-construction

No	Requirement	How we will meet the Expectations (minimum requirements)	Responsibility Key Contributor	Timing
CEMF 5.3a	<p>Principal Contractors will consider the following in the layout of construction sites:</p> <ul style="list-style-type: none"> <li>i. The location of noise intensive works and 24 hour activities in relation to noise sensitive receivers,</li> <li>ii. The location of site access and egress points in relation to noise and light sensitive receivers, especially for sites proposed to be utilised 24 hours per day,</li> <li>iii. The use of site buildings to shield noisy activities from receivers,</li> <li>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</li> <li>v. Aim to minimise the requirement for reversing, especially heavy vehicles.</li> </ul>	Section 6.1.1	<p><b>Environmental Manager</b>  <b>Environmental Coordinators</b>  <b>Site Supervisor</b></p>	Construction
CEMF 11.2a	<p>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:</p> <ul style="list-style-type: none"> <li>i. The visual mitigation measures as detailed in the planning approval documentation for construction;</li> <li>ii. Input from an experienced Landscape or Urban Designer;</li> </ul>	Section 6	<p><b>Environmental Manager</b>  <b>Environmental Coordinators</b>  <b>Site Supervisor</b></p>	Construction
	<ul style="list-style-type: none"> <li>iii. The maintenance of outward facing elements of site hoarding or noise barriers, including the removal of graffiti and weeds;</li> </ul>	Section 6.1.1	<p><b>Environmental Manager</b>  <b>Environmental Coordinators</b>  <b>Site Supervisor</b></p>	Construction
		Table 7	<p><b>Environmental Manager</b>  <b>Environmental Coordinators</b></p>	Construction

No	Requirement	How we will meet the Expectations (minimum requirements)	Responsibility Key Contributor	Timing
	<p>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;</p> <p>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</p>	<p>Section 6.1.2 Table 7</p> <p>Section 5</p>	<p>Environmental Manager Environmental Coordinators</p> <p>Environmental Manager Environmental Coordinators Site Supervisor Site Engineers</p>	<p>Construction</p> <p>Construction</p>
CEMF 11.2b	<p>vi. Compliance record generation and management.</p> <p>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.</p>	<p>Element 2: Monitoring and Reporting</p> <p>Table 7 Section 6.2 Element 2: Monitoring and Reporting</p>	<p>Environmental Manager Environmental Coordinators Site Supervisor</p> <p>Environmental Manager Environmental Coordinators Site Supervisor</p>	<p>Construction</p> <p>Construction</p>
CEMF 11.2c	<p>The Contractor will retain compliance records of any inspections undertaken in relation to visual and landscape measures.</p>	<p>Element 2: Monitoring and Reporting</p>	<p>Environmental Manager Environmental Coordinators Site Supervisor</p>	<p>Construction</p>

No	Requirement	How we will meet the Expectations (minimum requirements)	Responsibility Key Contributor	Timing
CEMF 11.3a	<p>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:</p> <ul style="list-style-type: none"> <li>i. Wherever feasible and reasonable, vegetation around the perimeter of the construction sites will be maintained;</li> <li>ii. Existing vegetation not affected by the construction works will be retained;</li> </ul>	Section 6.3 Table 7	<p><b>Environmental Manager</b> <b>Environmental Coordinators</b> <b>Site Supervisor</b></p>	Construction
		Section 6.3 Table 7	<p><b>Environmental Manager</b> <b>Environmental Coordinators</b> <b>Site Supervisor</b></p>	Construction
	Temporary construction works will be designed with consideration of urban design and visual amenity as per Section 4.4; and	Section 6.1.1	<b>Environmental Manager</b>	Pre-construction
	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.	Section 6.1.2 Table 7	<b>Environmental Manager</b>	Construction