

PROJECT MANAGEMENT PLAN

Air Quality Management Plan

Sydney Metro West – Western Tunnelling Package

Document Details

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DOCUMENT CONTROL

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

Revision History

Revision	Date	Description of changes	Prepared by	Approved by
A	21/12/2021	Early Works Submission	Stephanie Mifsud	Simon Hussey
B	28/02/2022	Revised draft for submission	Stephanie Mifsud	Simon Hussey
C	05/04/2022	Final draft for submission	Stephanie Mifsud	Simon Hussey

Terms and Definitions

Term	Definition
AQMP	Air Quality Management Plan
CEMF	Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CSSI	Critical State Significant Infrastructure
DPIE	Department of Planning, Industry and Environment (NSW)
EA	Environmental Advisor
ECM	Environmental Control Measures
EIS	Environmental Impact Statement
EM	Environmental Manager
EMS	Environmental Management System
EPA	Environmental Protection Authority
EPL	Environmental Protection License
ER	Environmental Representative
ESCP	Erosion and Sediment Control Plans
ESR	Environmental Site Representative
EWMS	Environmental Work Method Statement
GALC	Gamuda Australia – Laing O'Rourke Consortium
IS	Infrastructure Sustainability
ISC	Infrastructure Sustainability Council
MCoA	Ministers' Condition of Approval
MSF	Maintenance and Stabling Facility
NEPM	National Environment Protection (Ambient Air Quality) Measure
PM	Project Manager
POEO	<i>Protection of the Environment Operations Act 1997</i> (NSW)
REMM	Revised Environmental Mitigation Measures
SM	Sydney Metro
TSP	Total suspended particulate matter
UK IAQM	United Kingdom's Institute of Air Quality Management
WTP	Sydney Metro West Western Tunnelling Package Works

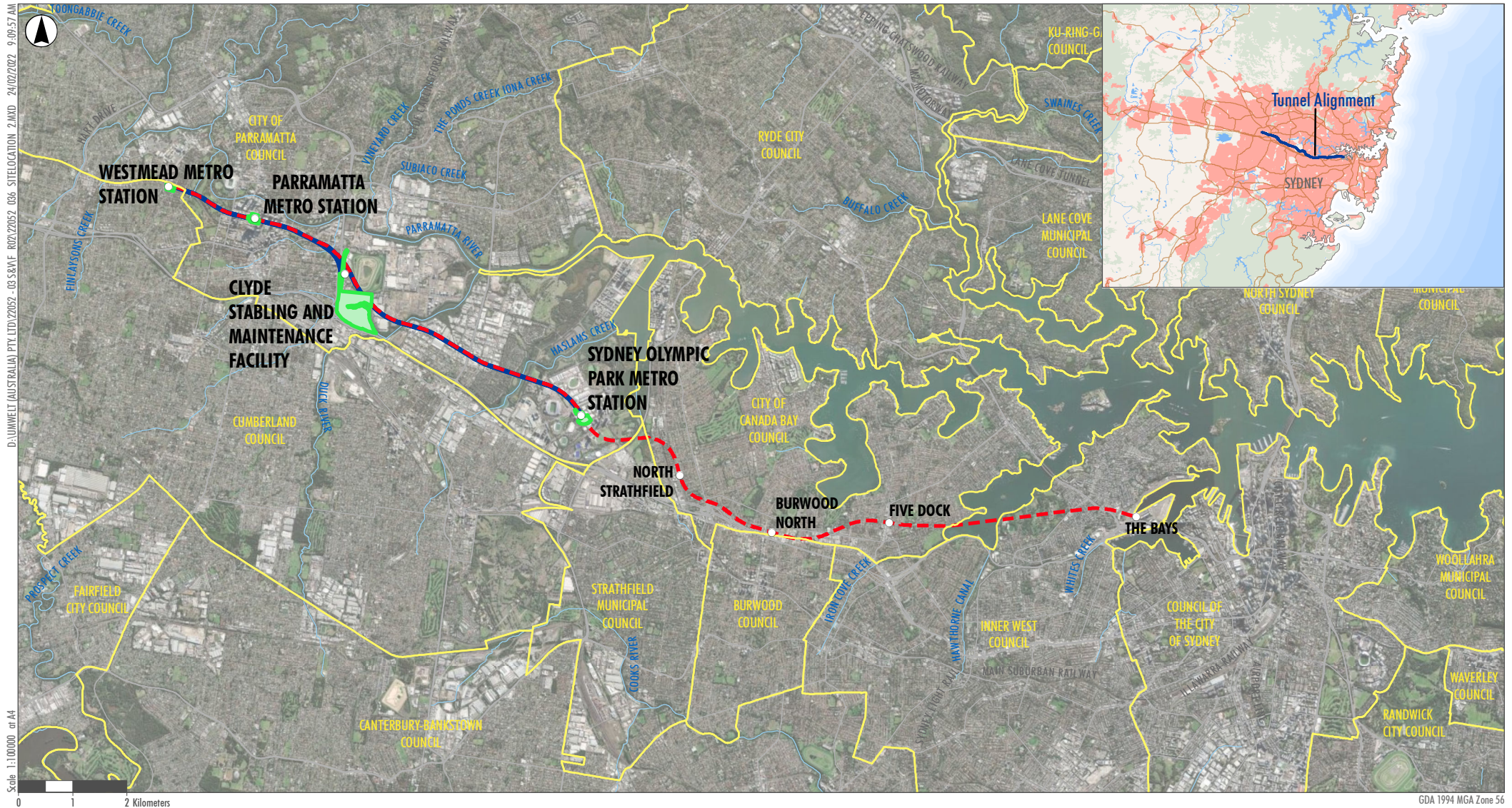
1 INTRODUCTION

1.1 Project Description

The scope of the work being undertaken under the Sydney Metro West Western Tunnelling Package works (WTP) (the Project) includes but is not limited to, the following:

- Westmead Station box excavation, including temporary support, stub tunnels, partially mined station cavern and crossover cavern including permanent lining and support
- Parramatta Station, including excavation of station box and associated support
- Clyde Maintenance and Stabling Facility (MSF), including permanent dive structure, portal, spur running tunnels, spur tunnel junction cavern, bulk earthworks, civil structures, utilities corridor, road crossing and creek diversion
- Rosehill Services Facility, including shaft excavation, permanent lining and lateral support
- A precast segment manufacturing facility at Eastern Creek
- Demolition and site clearance works
- Tunnelling between Sydney Olympic Park (SOP) and Westmead. Tunnelling will be undertaken by placing the tunnel boring machines (TBMs) at the Rosehill Services Facility box and retrieved out at the SOP Station Box and then placed back at the Rosehill Services Facility and retrieved at the Westmead Station Box. No surface works are proposed at SOP except for the retrieval of the TBM.

Refer to Figure 1 for the location of the WTP project.



1.2 Context

The Sustainability Management Plan (CEMP) and sub-plans have been developed for the delivery of the WTP. It will be delivered by Gamuda Australia Laing O'Rourke Consortium (GALC). This Air Quality Management Plan (AQMP) forms part of the CEMP (GA-PLN-ENV-001-Construction Environmental Management Plan).

Sydney Metro West – Westmead to The Bays Concept and Stage 1 received planning approval on 11 March 2021 (SSI 10038). The Project comprises the WTP, which is the western portion of Stage 1 of SSI 10038, from Sydney Olympic Park to Westmead. This AQMP has been prepared to address requirements of the Minister's Conditions of Approval (MCoA), Revised Environmental Management Measures (REMMs) listed in the Sydney Metro West – Submissions Report, dated 20 November 2020, the Construction Environmental Management Framework (CEMF) requirements and all applicable legislation as they relate to the Project.

1.3 Environmental Management System Overview

An overview of the Environmental Management System (EMS) is provided in Section 3 of the CEMP.

Key interactions for this sub-plan with other management plans in the EMS include:

- Site Establishment Management Plan
- Waste Management Sub-plan
- Spoil Management Sub-plan
- Flora and Fauna Management Sub-plan
- Soil and Water Quality Management Sub-plan.

1.4 Consultation Requirements

In accordance with MCoA C5, consultation with relevant government agencies is not required for this AQMP.

1.5 Certification and Approval

Sydney Metro West – Westmead to The Bays Concept and Stage 1 was subject to environmental impact assessment under the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). It was also declared a Critical State Significant Infrastructure (CSSI) by the Minister for Planning & Public Spaces (the Minister).

An Environmental Impact Statement (EIS) has been prepared under Division 5.2 of the EP&A Act and in accordance with Part 3 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000. Following exhibition of the EIS, an Amendment Report and Submissions Report were also prepared. After an assessment was carried out, the Minister determined that the Sydney Metro West – Stage 1 would be approved subject to conditions.

The planning approval (Infrastructure Approval SSI 10038) and related environmental assessment documents are located at: <https://www.planningportal.nsw.gov.au/major-projects/project/25631>.

This AQMP has been expressly nominated by the Planning Secretary to be endorsed by the ER. This AQMP will be submitted to the ER for endorsement and DPIE for information no later than one

(1) month before the commencement of construction. Construction will not commence until this AQMP has been endorsed by the ER, unless otherwise agreed by the Planning Secretary.

This AQMP, as submitted to the ER, including any minor amendments approved by the ER, will be implemented for the duration of construction.

2 PURPOSE AND SCOPE

2.1 Purpose

The purpose of this AQMP is to describe the air quality management approach that will be employed by GALC employees and its subcontractors during construction of the Project. This sub-plan forms an integral part of the Project CEMP and GALC's EMS. It applies to all works associated with Project works and establishes the environmental management controls to be implemented by GALC employees and its subcontractors.

This AQMP will address the air quality requirements of the:

- Sydney Metro Construction Environmental Management Framework (CEMF)
- Minister for Planning and Public Space's Conditions of Approval for the Project (MCoA)
- Revised Environmental Mitigation Measures (REMM)
- Infrastructure Sustainability Council (ISC) Infrastructure Sustainability (IS) rating tool.

2.2 Scope

This sub-plan outlines the mitigation and management measures that GALC will use to address potential air quality impacts during construction of the Project, while complying with relevant approval, statutory and contract requirements.

Specifically, this sub-plan addresses environmental aspects and impacts that relate to:

- Site establishment
- Demolition of existing structures
- Earthworks
- Tunnelling excavation
- Importing/exporting fill material
- Temporary road and intersection modification / site access
- Operating of vehicles and machinery
- Tree removal
- Stockpiling area(s)
- Disturbance of contaminated soils.

3 OBJECTIVES AND TARGETS

The key objectives of the AQMP are to ensure that impacts to air quality are minimised and are within the scope permitted by the MCoA. To achieve these objectives, the targets in Table 1 have been established for the management of air quality impacts during the Project construction in line with the IS rating tool requirements.

Table 1: Air quality targets and performance criteria

Objective	Target	Performance Indicators
Minimise gaseous and particulate pollutant emissions from construction activities as far as feasible and reasonable	Monitored air quality levels meet or are below the relevant NEPM requirements.	Regular monitoring
Identify and control potential dust and air pollutant sources	No major exceedances of the AQMP environmental control measures for all potential sources of dust and air pollutants during construction and operation of the Project.	Weekly inspection checklists and daily environmental surveillance (informal inspection)
Compliance with the MCoA, REMMs, CEMF requirements and relevant legislation as it applies to the Project	Full compliance	Compliance Reporting
Compliance – permits/licences	Full compliance	Compliance Reporting
Implementation of performance outcomes, commitments and mitigation measures specified in planning approval documents	Full compliance	Compliance Reporting
Meet IS rating tool requirements and objectives in the Sustainability Management Plan	Level 3 for credit Dis-4 'Air Quality', demonstrating monitoring and modelling at appropriate intervals and in response to complaints during construction and operation showing that we have zero exceedances of air emission or air quality goals.	Audits, monitoring and complaints records

4 ENVIRONMENTAL REQUIREMENTS

4.1 Legislation and Standards

GALC obligations include satisfying the requirements and complying with the provisions of the relevant legislation, guidelines, and policies, as well as international and Sydney Metro's standards. Details are provided in Table 2.

Table 2: Legislation, standards, policies, and guidelines relevant to the Project

Legislation	<i>Environmental Planning and Assessment Act 1979 (NSW)</i> <i>Protection of the Environment Operations Act 1997 (NSW) (POEO Act)</i> <i>National Greenhouse and Energy Reporting Act 2007 (Cth)</i> <i>Work Health and Safety Act 2011 (NSW)</i> <i>Protection of the Environment Operations (Clean Air) Regulation 2021 (NSW) (POEO (Clean Air) Regulation)</i>
Standards	AS/NZS ISO 14001:2016 Environmental management systems - Requirements with guidance for use. AS/NZS 3580.1.1:2016 – Methods for sampling and analysis of ambient air – Guide to siting air monitoring equipment. AS/NZS 3580.9.3:2015 Determination of suspended particulate matter – Total suspended particulate matter (TSP) – High volume sampler gravimetric method. AS/NZS 3580.9.6:2015 Determination of suspended particulate matter – PM10 high volume sampler with size selective inlet – Gravimetric method. AS/NZS 3580.10.1-2016 - Methods for sampling and analysis of ambient air – Determination of particulate matter – Deposited matter – Gravimetric method.
Guidelines and Specifications	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (Department of Environment and Conservation NSW (DEC), 2005) Best Practices Erosion and Sediment Control (IECA, 2008) Managing Urban Stormwater: Soils and Construction, Volume 1 (Landcom 2004) and Volume 2 (NSW Department of Environment and Climate Change (DECC) 2008) (the “Blue Book”) National Environment Protection (Ambient Air Quality) Measure 2003 (Cth) National Environment Protection (Diesel Vehicle Emissions) Measure 2001 (Cth)

4.2 Approvals, Licenses and Permits

This AQMP has been developed to satisfy the requirements of MCoA C1. A full list of applicable MCoAs, REMMs, CEMF requirements and EPL condition requirements is provided in Attachment 1. In the Assessment Report for Sydney Metro West - Stage 1, the Department of Planning, Industry and Environment considers that EIS has adequately assessed air quality issues and that they can generally be managed through the MCoA, REMMs, CEMF requirements and EPL condition requirements in Attachment 1. Therefore, no further assessment of air quality impacts has been undertaken for this AQMP.

Other legislation relevant to this AQMP is included in Attachment 2 of the CEMP.

4.3 IS Rating Tool Requirements

Table 3: IS rating tool requirements applicable to air quality management

Credit	IS Rating Tool Requirement	Document Reference
Dis-4 L1	<ul style="list-style-type: none"> Measures to minimise adverse impacts to local air quality during construction and operation have been identified and implemented. Monitoring of air emissions and/or air quality is undertaken at appropriate intervals and in response to complaints during construction 	Section 6.2 Section 7.1 CEMP Monitoring Program
Dis-4 L2	<ul style="list-style-type: none"> Requirements for L1 are achieved. Monitoring and modelling demonstrates no recurring or major exceedances of air emission or air quality goals 	CEMP Monitoring Program
Dis-4 L3	<ul style="list-style-type: none"> Requirements for L2 are achieved. Monitoring and modelling demonstrates no exceedances of air emission or air quality goals 	CEMP Monitoring Program

An exceedance of air quality goals for this project is defined as the following:

- 50% more than 50 $\mu\text{g}/\text{m}^3$ for PM_{10} averaged over 24 hours
- 50% more than 25 $\mu\text{g}/\text{m}^3$ for $\text{PM}_{2.5}$ averaged over 24 hours
- 50% more than 30 mg/m^3 for Carbon monoxide for more than 1 hour
- 50% more than 246 $\mu\text{g}/\text{m}^3$ for Nitrogen Dioxide for more than 1 hour
- 50% more than 570 $\mu\text{g}/\text{m}^3$ for Sulfur Dioxide for more than 1 hour.

Section 7 includes a suite of mitigation and management measures that will be implemented to avoid or minimise impacts.

5 EXISTING ENVIRONMENT

A description of the existing air quality has been sourced from the Sydney Metro West – Stage 1 EIS.

Long-term monitoring data from the Bureau of Meteorology monitoring station at Parramatta North indicates that the Sydney metropolitan area experiences warm, wet summers, with average maximum temperatures around 28 degrees Celsius. Months through winter are recorded as the driest, with the lowest average monthly rainfall occurring in July. Conditions most likely to be associated with dust generation were measured in Spring, with above average temperature conditions and average or below average rainfall.

5.1 Background Air Quality

Air quality data sourced from monitoring stations at Prospect, Parramatta North, Rozelle and Randwick was summarised in Chapter 23 of the EIS for the years 2014 to 2018. This data included particulate matter (PM₁₀ and PM_{2.5}), carbon monoxide, nitrogen dioxide and sulfur dioxide, which was assessed using the air quality impact assessment criterion for each pollutant specified in the Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (Environment Protection Authority, 2016).

The assessment indicated that air quality around Parramatta and Central Sydney is generally of an acceptable quality. There were occasional occurrences of PM₁₀ and PM_{2.5} exceeding the applicable air quality impact assessment criteria, which was due to natural and human-originating events, including dust storms and bushfires.

5.2 Local Emission Sources

Sources of air pollutant emissions in the Sydney region are generally because of:

- Domestic activities (including wood-fire home heaters and lawn mowing)
- Road traffic and off-road mobile equipment
- Industrial and commercial activities.

The Commonwealth Department of the Environment and Energy National Pollutant Inventory identifies the following localised sources of air pollution to the Project:

- Petroleum and hydrocarbon distribution facilities at Rosehill/Camellia, Silverwater, and Homebush West
- Waste treatment facilities at Camellia, Silverwater, Clyde, and Homebush Bay
- Manufacturing of construction materials at Rosehill and Camellia
- Food and beverage manufacturing at Lidcombe, Northmead, Camellia, Ermington, and Camperdown
- Other manufacturing or processing facilities at Rydalmere, Silverwater, and Enfield
- Railway maintenance activities at Auburn.

5.3 Sensitive Receivers

The Project will traverse a well-established urban environment that contains a wide range of sensitive receivers including residential properties, community facilities (such as schools, childcare centres, places of worship and medical facilities), recreational areas and commercial and retail

premises. A number of these receivers are located immediately adjacent to Stage 1 construction sites. Measures to mitigate the impacts of construction-related air emissions upon those receivers are detailed in Section 7.1.

Section 8.4 and Attachment 8 of the CEMP provides details of the contents of the environmental control maps and their implementation. These ECMs will include sensitive receivers and key air quality / dust controls.

6 ASPECTS AND IMPACTS

6.1 Construction Activities

The Project will involve a range of construction activities incorporating various heavy machinery, plant and equipment that will operate in several locations across the Project. To assess the level of potential impact on air quality, the broad categories of construction activity likely to have an impact are identified below:

- Site establishment
- Site clearing as approved in the EIS
- Operation of large plant and equipment
- Earthworks
- Temporary road and intersection modification / site access
- Minor utility works and connections
- Tunnelling excavation
- Tunnel supporting activities:
 - Spoil handling (including on-site truck movements)
 - Construction of acoustic sheds and other mitigation measures

6.2 Impacts

The potential for impacts on air quality will depend on several factors. Primarily impacts will be dependent on the nature, extent and magnitude of construction activities and their interaction with the natural environment. Activities with the potential to impact on air quality during construction may include:

- Demolition of existing structures
- Clearing of vegetation resulting in exposed ground surfaces potentially resulting in dust generation
- Excavation activities resulting in the generation of dust
- Excavation of contaminated material
- Spoil stockpiling
- Sorting of waste material from demolition
- Loading of spoil and waste material for transport using excavators and other loading equipment
- Use of diesel-powered and petrol-powered vehicles, plant and equipment, resulting in the generation of pollutants including carbon monoxide
- Vehicle movement resulting in increased dust emissions
- Concrete sawing resulting in the generation of concrete dust particles.

The environmental aspects and potential impacts specific to Project construction are summarised in Table 4.

Table 4: Aspects and impacts relevant to air quality

Aspects	Impacts
Site establishment activities, including clearing of vegetation and demolition of existing structures	<p>Dust generation due to:</p> <ul style="list-style-type: none"> • Vegetation clearance, clearing and grubbing • Stockpiling of topsoil and mulched vegetation • Demolition of buildings and associated infrastructure (asbestos is not addressed in this sub-plan) • Wind erosion of exposed surfaces and stockpiles • Wheel-generated dust from vehicular traffic on unsealed roads and works site access points. <p>Particulate matter (PM_{2.5}/PM₁₀) generation due to:</p> <ul style="list-style-type: none"> • Operation of construction vehicles, plant, and equipment • Dust generation activities set out above.
Excavation activities	<p>Dust generation due to:</p> <ul style="list-style-type: none"> • Drilling • Operation of excavators, front end loaders, bulldozers, dump trucks and other plant on exposed surfaces • Loading/unloading trucks with spoil and aggregate (including dust generation from within the acoustic sheds) • Wind erosion of exposed surfaces and stockpiles • Wheel-generated dust from vehicular traffic on unsealed roads and work site access points. <p>Particulate matter (PM_{2.5}/PM₁₀) generation due to:</p> <ul style="list-style-type: none"> • Operation of construction vehicles and plant • Dust generation activities set out above. <p>Odour generation from:</p> <ul style="list-style-type: none"> • Exposed contaminated material or soils (refer to Attachment 5 of the Soil and Water Management Sub-plan for the Unexpected Contaminated Land and Asbestos Finds Procedure)
Spoil and waste stockpiling, handling, and haulage	<p>Dust generation due to:</p> <ul style="list-style-type: none"> • Spoil stockpiles • Spoil and waste haulage (uncovered loads) • Wheel-generated dust from heavy vehicle movements around construction sites and along haulage routes • Sorting of waste material from demolition works • Operation of excavators, front end loaders, bulldozers, dump trucks and other plant on exposed surfaces • Loading/unloading trucks with spoil and aggregate <p>Particulate matter (PM_{2.5}/PM₁₀) generation due to:</p> <ul style="list-style-type: none"> • Operation of construction vehicles and plant • Dust generating activities set out above.

Aspects	Impacts
	<p>The potential for dust related impacts due to spoil handling at each of the tunnel/station box sites will be reduced as most of the spoil handling will occur within acoustic sheds. Measures to further minimise generation of dust and particulate matter within acoustic sheds include haul road sweeping, dust suppression measures such as water carts and misters, and the closure of roller doors where appropriate.</p>
Use of plant, vehicles and equipment	<p>Generation of pollutants from:</p> <ul style="list-style-type: none"> • Use of diesel-powered and petrol-powered vehicles, plant and equipment, including idling vehicles and transportation vehicles. <p>Dust generation (wheel generated) from:</p> <ul style="list-style-type: none"> • Construction vehicles • Construction equipment, generators, and other plant. <p>Particulate matter (PM_{2.5}/PM₁₀) generation due to:</p> <ul style="list-style-type: none"> • Operation of construction vehicles and plant, including idling vehicles and poorly maintained equipment • Dust generating activities set out above. <p>Odour generation from:</p> <ul style="list-style-type: none"> • Emissions from stationary plant or equipment <p>All vehicles used on site, for transporting materials to or from site, or for any other activities associated with the Project, would be maintained to avoid the emission of excessive air impurities in accordance with Part 5.8 of the POEO Act and the POEO (Clean Air) Regulation.</p>
Concrete sawing	<p>Dust generation from:</p> <ul style="list-style-type: none"> • Construction equipment, generators, and other plant used for concrete sawing • Movement of construction vehicles. <p>Particulate matter (PM_{2.5}/PM₁₀) generation due to:</p> <ul style="list-style-type: none"> • Operation of construction vehicles and plant, including idling vehicles and poorly maintained equipment • Dust generating activities set out above.

7 ENVIRONMENTAL MITIGATION AND MANAGEMENT MEASURES

Measures to manage air quality impacts and reduce the risk of impact to construction workers and sensitive receivers will be implemented throughout the Project. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Measures used on this Project are identified in Table 5. These measures will be documented in specific procedures, erosion and sediment control plans and site layout plans.

7.1 Standard Management and Mitigation Measures

Specific measures and requirements to meet the objectives of this sub-plan and to manage impacts on air quality are outlined in Table 5.

These measures have been developed in line with the requirements in the EIS. As a minimum, the following will be incorporated at each construction site and documented on the Environmental Controls Map in Attachment 8 of the CEMP, where applicable.

Table 5: Environmental Mitigation and Management Measures

Item	Mitigation and management measures and Project site requirements	Responsibility	Timing	Reference
SEA – Senior Environmental Advisor, EA – Environmental Advisor, CM – Construction Manager, SS – Site Supervisor, TM – Traffic Manager				
1.	All site staff, including subcontractors must attend an induction which details mitigation measures relevant to this AQMP. Air quality management will be further communicated in toolbox talks and prestart briefings. The ECMs will include mitigation measures for air quality.	SS/EA	During construction	MCoA D1, CEMF 13.1a (i)
2.	Training will be provided to relevant personnel, including relevant sub-contractors on air quality requirements from this plan through site inductions, toolbox talks and targeted training sessions.	SS/EA/SEA	During construction	MCoA D1, CEMF 13.1a (i)
3.	<p>The following best-practice dust management measures are to be implemented during all construction works:</p> <ul style="list-style-type: none"> Regularly wet-down exposed and disturbed areas including stockpiles, especially during dry weather Adjust the intensity of activities based on measured and observed dust levels and weather forecasts Minimise the volume of materials stockpiled and position stockpiles away from surrounding receivers Regularly inspect dust emissions and apply additional controls as required <p>Consider all relevant measures listed in the UK IAQM corresponding to the highest level of risk determined around each construction site</p>	EA/CM/SS	Pre-construction / During construction	MCoA D1, REMM AQ1
4.	Plant and equipment will be maintained in a proper and efficient manner, including regular maintenance checks.	SS/CM	During construction	MCoA D1, REMM AQ1, CEMF 13.3a (i)

Item	Mitigation and management measures and Project site requirements	Responsibility	Timing	Reference
SEA – Senior Environmental Advisor, EA – Environmental Advisor, CM – Construction Manager, SS – Site Supervisor, TM – Traffic Manager				
5.	Visual inspections will be undertaken for emissions from plant and equipment as part of pre-acceptance checks.	SS/CM	During construction	MCoA D1, REMM AQ1, CEMF 13.3a (i)
6.	<p>The following best-practice odour management measures would be implemented during relevant construction works:</p> <ul style="list-style-type: none"> • The extent of opened and disturbed contaminated soil at any given time would be minimised • Temporary coverings or odour suppressing agents would be applied to excavated areas where appropriate • Regular monitoring would be conducted during excavation to verify that no offensive odours are being detected beyond the site boundary 	EA/CM/SS	Pre-construction / During construction	MCoA D1, REMM AQ1
7.	The site induction will include information on site speed limits to ensure all personnel obey the speed limit when operating heavy machinery and vehicles. This will be emphasised for movement along unsealed roads, in order to reduce the extent of dust generated by vehicle movements.	SS/CM/TM	During construction	MCoA D1, CEMF 13.1a (i)
8.	All access roads will be maintained and managed to minimise the generation of dust, including regular wet-down in dry weather, where needed.	SS/CM	During construction	MCoA D1, CEMF 13.1a (i)
9.	Pesticides will not be applied during windy conditions when the use of pesticides may affect non-targeted areas or become a human health concern.	CM/SS	During construction	MCoA D1, CEMF 13.1a (i)
10.	Weekly site inspections to ensure environmental controls to minimise dust are in place at all compound sites, particularly compounds operating on a 24-hour basis.	SEA/CM/SS	Pre-construction / During construction	MCoA D1, CEMF 13.1a (i)

Item	Mitigation and management measures and Project site requirements	Responsibility	Timing	Reference
SEA – Senior Environmental Advisor, EA – Environmental Advisor, CM – Construction Manager, SS – Site Supervisor, TM – Traffic Manager				
11.	Use of acoustic shed for some construction activities to minimise dust impacts.	SEA/CM	Pre-construction	MCoA D1, CEMF 13.1a (i)
12.	Engine idling will be minimised while plant is stationary and engines to be switched off when not being used.	CM/SS	During construction	MCoA D1, CEMF 13.1a (i)
13.	Suitable dust suppression and/or collection techniques will be used during cutting, grinding or sawing activities likely to generate dust in close proximity to sensitive receivers.	EA/CM/SS	Pre-construction / During construction	MCoA D1, CEMF 13.1a (i)
14.	All potentially hazardous material will be identified and removed from buildings in an appropriate manner prior to the commencement of and/or progressively during demolition and in accordance with all relevant codes of practice.	EA/CM/SS	Pre-construction / During construction	MCoA D1, CEMF 13.1a (i)
15.	Wheel wash or rumble grids will be installed at access/egress points of all construction sites during site establishment activities to prevent the tracking of soils and sediments on hard surfaces outside of construction sites.	SEA/CM	Pre-construction	MCoA D1, CEMF 13.1a (i), CEMF 13.3a (iv)
16.	Ensure that all vehicles and plant and equipment are fitted with catalytic converters, diesel particulate filters or equivalent devices where reasonable and feasible.	CM/SS	During construction	MCoA D1, CEMF 13.1a (i)
17.	All excavators and mobile cranes used for the tunnelling construction works, which are onsite for more than three months, will comply with United States Environmental Protection Agency (US EPA) Tier 4 exhaust emission standards.	SEA/CM	Pre-construction / During construction	MCoA D1, CEMF 13.1a (i)
18.	All stockpiles will be managed in accordance with Managing Urban Stormwater: Soils and construction (Landcom, 2004; “the Blue Book”)	EA/CM/SS	During construction	MCoA D1, CEMF 13.1a (i)

Item	Mitigation and management measures and Project site requirements	Responsibility	Timing	Reference
SEA – Senior Environmental Advisor, EA – Environmental Advisor, CM – Construction Manager, SS – Site Supervisor, TM – Traffic Manager				
19.	Dust extraction and filtration systems will be installed for tunnel excavation works and deep excavation with limited surface exposure.	SEA/CM	Pre-construction / During construction	MCoA D1, REMM AQ1, CEMF 13.3a (v)
20.	Weather conditions will be monitored daily, including weather forecasts and onsite observations. If weather conditions are not suitable for dust-generating activities, including during strong winds, all dust-generating activities will stop, or where practicable, modified to minimise air quality impacts.	EA/CM/SS	During construction	MCoA D1, CEMF 13.1a (i)
21.	Stockpiles will be located away from sensitive receivers and covered, where practicable.	EA/CM/SS	Pre-construction / During construction	MCoA D1, CEMF 13.1a (i)
22.	Heavy vehicles used for spoil haulage will have appropriate covering to minimise movement of dust.	CM/SS	During construction	MCoA D1, CEMF 13.1a (i)
23.	Wet dust-suppression methods will be considered when using excavators, including misting fans and sprays.	EA/CM/SS	During construction	MCoA D1, CEMF 13.1a (i)
24.	Water suppression will be used for active earthwork areas, stockpiles, unsurfaced haul roads and loads of soil being transported to reduce wind-blown dust emissions.	EA/CM/SS	During construction	MCoA D1, CEMF 13.1a (i), CEMF 13.3a (ii)
25.	Opportunities will be investigated for incorporating emission controls within the acoustic sheds, including dust extraction and filtration systems.	SEA/CM	During construction	MCoA D1, REMM AQ1
26.	Dust monitoring will be undertaken daily by monitoring weather conditions and visually inspecting work site areas for uncontrolled dust generation.	EA/SS	During construction	MCoA D1, CEMF 13.1a (i)
27.	All dust generated within the tunnels will be collected at the face via mechanical means (e.g. scrubber or dust box), due to a positive pressure ventilation system. Clean air will travel	SEA/CM	During construction	MCoA D1, CEMF 13.1a (i)

Item	Mitigation and management measures and Project site requirements	Responsibility	Timing	Reference
SEA – Senior Environmental Advisor, EA – Environmental Advisor, CM – Construction Manager, SS – Site Supervisor, TM – Traffic Manager	through the length of the tunnel to which point it reaches the tunnel portal and escapes.			

8 COMPLIANCE MANAGEMENT

8.1 Roles and Responsibilities

The GALC Project Team's organisational structure and overall roles and responsibilities are outlined in Section 7 of the CEMP. Key roles with regards to the management of air quality are identified in Table 6.

Table 6: Roles and responsibilities

Role	Authority and Responsibility
Environmental Manager	<ul style="list-style-type: none"> Develop and implement the AQMP Oversee air quality monitoring in accordance with this sub-plan Oversee compliance tracking and reporting Oversee the keeping of all environmental records Engage suitably qualified consultants to support implementation of this sub-plan In consultation with the Project Director and Construction Director, oversee the investigation and reporting of environmental incidents arising from air quality impacts Regularly engage with the key stakeholders and other interface contractors to achieve environmental alignment.
Stakeholder and Community Engagement Manager	<ul style="list-style-type: none"> Manages key stakeholder relationships, including in relation to any air quality impacts throughout construction Provision of strategic advice to the leadership team Identify and mitigate reputational risks, including any relating to air quality impacts Accountable for crisis and incident communications
Senior Environmental Advisor	<ul style="list-style-type: none"> Complete inspections and monitoring, particularly of No-Go zones and site clearing limits (refer to Section 8.3) Complete reporting (refer to Section 8.3) Prepare ECMs to outline the controls in this sub-plan relevant to each work activity Respond to environmental incidents and non-conformances
Environmental Advisor	<ul style="list-style-type: none"> Delivery toolbox / prestart presentation (or other specific training) to inform work crews of the controls documented in the ECMs Install and maintain environmental controls in accordance with ESCPs and ECMs, including clear delineation of site boundaries Attend inspections with the ER, Sydney Metro, or other stakeholders Implement corrective actions raised during environmental inspections in agreed timeframes Notify the Environmental Representative any observed impacts on air quality.

Role	Authority and Responsibility
Construction Manager	<ul style="list-style-type: none"> Ensures compliance with this AQMP, procedures and ECMs Work collaboratively with environment teams to ensure the mitigation and management measures in this AQMP are integrated into construction works Ensure that air quality impacts are always considered in forward planning and scheduling
Site Supervisor	<ul style="list-style-type: none"> Install and maintain environmental controls in accordance with ESCPs and ECMs, including clear delineation of site boundaries and protection of No-Go Zones Attend inspections with the Environmental Representative, Sydney Metro, or other stakeholders Implement corrective actions raised during environmental inspections in agreed timeframes Notify the Environmental Advisor of any observed impacts on visual amenity, including vegetation removal, light spill, littering and stockpile management etc.
All personnel	<ul style="list-style-type: none"> Notify Site Supervisor of any observed impacts on air quality.

8.2 Training

The general project induction will include a component on air quality management to ensure that personnel understand the potential impacts from construction and the proposed mitigation measures.

The site induction training will address elements related to air quality management including:

- Existence and requirements of this AQMP
- Site layout
- Dust suppression
- Stockpile management
- The location of potentially sensitive receivers
- Works that can and cannot be carried out depending on the weather
- Speed limits for site access roads
- Details of the complaints handling procedure
- Details of the environmental incident procedures
- Relevant legislation
- Roles and responsibilities for air quality management.

Targeted training in the form of toolbox talks or tailored training sessions will also be provided to personnel with a key role in air quality management. Specific training may include:

- Obligations and specific responsibilities under the Project MCoA including dust suppression practices to minimise impacts on sensitive receivers
- Responsibilities pertaining to air quality management under the POEO Act, POEO (Clean Air) Regulation and this sub-plan
- Identification of construction activities with potential to generate air pollution and dust emissions.

Specific training will be provided to personnel likely to work within or in proximity (<50 m) to sensitive receivers. Where required, toolbox /pre-start talks will also include dust suppression methods and air quality management.

Further details regarding inductions and training are outlined in Section 9 of the CEMP.

8.3 Monitoring, Inspections and Reporting

Monitoring, inspection, and reporting requirements are outlined in Table 7. Further air quality monitoring may be required to meet the conditions of the EPL.

Additional requirements and responsibilities in relation to monitoring and inspections more broadly are documented in the CEMP.

Table 7: Inspection, monitoring and reporting requirements

Type of Inspection	Frequency	Standards	Reporting	Responsibility
Construction site layout inspection	Periodic inspections during site establishment	Pre-construction site layout inspections for sensitive receivers potentially impacted by dust emission and air pollution. Inspection includes location of dust generating activities in proximity to sensitive receivers and location of dust suppressing controls (including wheel washing sites).	Pre-construction inspection report	Senior Environmental Advisor
Weekly inspections	Once a week during environmental inspections	Weekly inspections which, as part of the weekly environmental inspection further outlined in the CEMP, will include inspection of the environmental controls and mitigation measures outlined in Section 7.	Weekly environmental inspection	Senior Environmental Advisor
Daily inspections	Once a day walk through the construction site	Daily walk through of the construction site to ensure all dust controls are being implemented effectively and to identify potential air quality impacts, including: <ul style="list-style-type: none"> • Idling vehicles and equipment • Uncontrolled dust generating activities • Exposed stockpiles or storage areas • Mud tracking off-site • No continuous visible vehicle/plant/equipment emissions for longer than 10 seconds (POEO (Clean Air) Regulation). 	Daily environmental checklist	Site Supervisor
Weather monitoring	Daily	Prevailing wind conditions and weather forecast from Bureau of Meteorology to be reviewed daily, and notifications to be triggered where extreme weather is forecast, including: <ul style="list-style-type: none"> • Winds >25km/hr • Rain >20mm per day 	High risk weather notifications/records	Environmental Advisor
Visual dust monitoring	Daily	Daily visual monitoring of potential particulate matter (PM _{2.5} /PM ₁₀) and/or dust generation due to operation of	Monitoring reports	Environmental Advisor

Type of Inspection	Frequency	Standards	Reporting	Responsibility
		construction vehicles, plant, and equipment, and dust generation activities listed in Table 4. Additional monitoring may be required to comply with the EPL, or in response to complaints.		
Odour monitoring	As required by the EPL, or in response to complaints.	Olfactory monitoring of potential odour generation from exposed contaminated material, water, or soils, or generally associated with hydrocarbons, or emissions from stationary plant or equipment. No detectable odours and gases (e.g., inspections of freshly disturbed areas, open stockpiles, water treatment plants, waste skips).	Monitoring reports	Environmental Advisor
Vehicle emissions	Weekly / annually	Weekly monitoring of plant and construction vehicles to ensure they have appropriate emission controls and are being maintained correctly. This will be undertaken through a maintenance check. Visual inspections of emissions coming from plant and equipment as part of pre-acceptance checks. Contractor to provide annual inventory of non-road diesel powered vehicles using the TfNSW Air Emission Data collection workbook.	Annual inventory	Site Supervisor

Specific reports prepared in response to air quality monitoring will capture detail including, but not limited, to:

- Within one working day of receiving a complaint, notify Sydney Metro
- Within 5 working days, provide Sydney Metro with a final report regarding the complaint
- Detail of any corrective actions and confirmation of successful implementation
- Records of compliance with the MCoA, REMMs, CEMF requirements and management measures in this AQMP
- Detail of any air quality monitoring data, including records of exceedances
- Records of daily meteorological condition monitoring
- Records of any management measures implemented as a result of adverse, windy weather conditions
- Records of air quality and dust inspections undertaken.

8.4 Auditing

Audits (both internal and independent) will be undertaken to assess the effectiveness of environmental controls, compliance with this sub-plan, MCoA and other relevant approvals, licenses, and guidelines. These audits will be undertaken at planned intervals to provide information on whether the Project:

- Is meeting its compliance obligations
- Conforms to this sub-plan
- Determines if this sub-plan is effectively implemented and maintained.

GALC will undertake an internal audit within the first three months from commencement of construction and then annually for the AQMP.

The approach to internal and independent audits, including auditing schedule, is outlined further in Section 11.3 of the CEMP.

8.5 Environmental Incidents

All Incidents will be classified by the Environment and Sustainability Lead in consultation with the Deputy Project Director in accordance **GA-MSP-HSEQ-006 Incident Management and Reporting** and the classifications outlined in Section 12.2 of the CEMP.

All incidents will be reported in accordance with the Sydney Metro Environmental Incident and Non-compliance Reporting Procedure Version 5.1 (SM-17-00000096), relevant licenses and legislation.

The report will be completed, and details of the incident will be entered into an electronic incident register, which is to be always accessible from site. This will be done through GALC's Project Safety and Environmental Manager Software. The Incident Register will include:

- Details of any incidents where air quality causes public nuisance
- Details of any exceedance of air quality criteria
- Details of any other air quality related incidents.

Further details about incident classification and notification are detailed in Section 12.2 of the CEMP.

Examples of incidents as they relate to air quality may typically include:

- Exhaust fumes from faulty or unmaintained vehicles and equipment
- Generation and dispersion of dust during uncontrolled construction activities
- Odour from particulate matter when excavating contaminated material.

The Project Director, Deputy Project Director, Construction Manager and relevant Project Manager will be made aware of the incident as soon as possible.

In the event an actual or potential incident is reported through the Community Complaints line, the Environment Manager will be contacted immediately to respond and investigate.

The approved ER will review all relevant notifications of incidents, in accordance with MCoA A43.

8.5.1 Sydney Metro

The Project Director will notify Sydney Metro of any incidents. In accordance with MCoA A43, and in order for Sydney Metro to comply with its incident notification requirements under the Planning Approval, the incident notification will include the location and general nature of the incident, any non-conformance with the CSSI Approval and any corrective actions in relation to that non-conformance where relevant.

The Environmental Incident and Non-compliance Notification Report (SM ES-FT-403) or a similar and consistent form approved by Sydney Metro will be completed for all actual and potential Class 1 and 2 environmental incidents within 48 hours and forwarded to the Project Director (refer to Section 12.2 of the CEMP for environmental incident classifications).

GALC will provide notification of the incident to Sydney Metro's Representative in accordance with Table 8.

Table 8: Incident Reporting Requirements

Notification Type	Contract Requirement
Initial verbal notification	<ul style="list-style-type: none">• Notify Sydney Metro and ER of incidents as soon as possible.• If the incident is a notifiable event, GALC will notify the EPA, Sydney Metro and relevant authorities immediately.
Environmental Incident Report requirements	<ul style="list-style-type: none">• Prepare an incident / non-conformance report and submit to Sydney Metro and the ER within 48 hours.

8.5.2 Planning Secretary

The Planning Secretary will be notified via phone or in writing via the Major Projects website immediately after GALC and Sydney Metro become aware of an incident, in accordance with MCoA A43. Any notification via phone will be followed up by a notification in writing via the Major Projects website within 24 hours of the initial phone call, which will include the CSSI application number and name (if it has one), as well as location and general nature of the incident.

Subsequent notification will be given and reports submitted in accordance with the requirements set out in MCoA A44.

8.5.3 EPA and Other Agencies

If a potential environmental pollution event occurs (as specified by the POEO Act), the Environment and Sustainability Lead will immediately notify the EPA and other agencies as nominated by the Pollution Incident Response Management Plan (PIRMP). Information to be provided to the EPA will be in accordance with Section 150 of the POEO Act.

For notifiable events as detailed in the PIRMP, in addition to notifying the EPA of pollution incidents other authorities as outlined below will also be notified immediately:

- The Ministry of Health (via the local Public Health Unit – 02 9391 9000)
- SafeWork NSW (13 10 50)
- Depending on the LGA where the incident occurred: Cumberland City Council (02) 8757 9000, (Westmead) City of Parramatta (02) 9806 5000 (Parramatta, Clyde and Sydney Olympic Park sites)
- Fire and Rescue NSW on 000.

Regardless of the actual or potential impact, these authorities will be notified under the amended legislation for all notifiable pollution incidents. Further information in relation to the incident will be provided immediately it becomes available after the initial notification. Records of contact with and details of the information provided to external authorities will be maintained in the project records.

Incidents requiring notification to the EPA will also be immediately notified to the Gamuda Australia Head of Health, Safety, Environment and Quality, LOR Environmental Leader, LOR HSE General Manager and the Head of Legal for both Gamuda Australia and Laing O'Rourke.

8.6 Complaints Register

All complaints made by the community and stakeholders will be managed in accordance with the Sydney Metro's requirements, the Overarching Community Communication Strategy, including the Sydney Metro Construction Complaints Management System (CCMS) (2021), as well as relevant MCoAs (B1 – B6).

The CCMS will be implemented before the commencement of any construction works and maintained for the duration of construction. The CCMS will be available for a minimum for 12 months following completion of construction of Project.

The following information will 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 Project
- 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
- d) A mediation system for complaints unable to be resolved.

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

An electronic complaints register will be maintained on-site at all times. This register will record information on all complaints received about the Project during construction works and for a minimum of 12 months following the completion of construction. This register will include the following information:

- 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
- h) If no action was taken, the reason(s) why no action was taken.

Community members and stakeholders making a complaint will 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 GALC to provide that information to government agencies
- c) the supply of personal information by the complainant is voluntary
- 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 will be included on the GALC or Project website to make prospective complainants aware of their rights under the *Privacy and Personal Information Protection Act 1998*. For any complaints made in person, the complainant will be made aware of the Collection Statement.

In accordance with the CCMS, GALC will submit the complaints register to Sydney Metro for upload on the community engagement database. The Complaints Register will be provided to the Planning Secretary upon request, within the timeframe stated in the request.

9 REVIEW AND IMPROVEMENT

9.1 Continuous Improvement

The Project Management Team will review the status and adequacy of the EMS including the CEMP and CEMP Sub-plans. The objective of the review will be to ensure that it meets current Sydney Metro and GALC requirements as well as relevant environmental standards.

Continuous improvement of this AQMP 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 nonconformances 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.

In order to ensure continual improvement and prevent recurring issues, this sub-plan will be reviewed in response to:

- Corrective actions arising from non-conformance, incidents, or audits
- Opportunity for improvement in environmental management performance which may be identified by the project team, ER or Sydney Metro
- Changes to the Gamuda Australia EMS.

Review of this sub-plan will occur annually as a minimum, or as needed in consultation with Sydney Metro and the ER. A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure as outlined in the CEMP.

9.2 Document Updates

The processes described above may result in the need to update or revise this sub-plan. This will occur annually as a minimum, or as needed, and may only be approved by the Environmental Manager, or delegate.

Where minor amendments are required to this AQMP, the revised AQMP will be issued to the ER for review and endorsement in accordance with MCoA A30(j).

9.3 Distribution

All GALC personnel and contractors will have access to this AQMP via the project document control management system.

The approved AQMP will be published on the GALC website within one week of being approved and be publicly available until the end of the Construction Period.

A copy of the AQMP will be published and maintained on the Project website, in accordance with MCoA B11. The AQMP will be published within one week of its approval or before the commencement of any work to which they relate or before their implementation, as the case may be.

The document is uncontrolled when printed.

ATTACHMENTS

Attachment 1 – Compliance Table

The MCoA, REMMs, CEMF requirements and EPL requirements that relate to this AQMP are detailed in the following tables.

Conditions of Approval

ID	Conditions of Approval	Document Reference
A2	Stage 1 of 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 of this schedule unless otherwise specified in, or required under, this approval.	CEMP
C1	Construction Environmental Management Plans (CEMPs) and CEMP Sub-plans must be prepared in accordance with the Construction Environmental Management Framework (CEMF) included in the documents listed in Condition A1 of this schedule to detail how the performance outcomes, commitments and mitigation measures specified in the documents listed in Condition A1 of this schedule will be implemented and achieved during construction.	CEMP and this document
C6	The CEMP Sub-plans must state how:	
	(a) the environmental performance outcomes identified in the documents listed in Condition A1 of this schedule will be achieved;	This document
	(b) the mitigation measures identified in the documents listed in Condition A1 of this schedule will be implemented;	This document
	(c) the relevant conditions of this approval will be complied with; and	This document
	(d) issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART principles.	Section 6, Section 7 and the CEMP
C7	With the exception of any CEMP Sub-plans expressly nominated by the Planning Secretary to be endorsed by the ER, all CEMP Sub-plans must be submitted to the Planning Secretary for approval.	Section 1.5

ID	Conditions of Approval	Document Reference
C8	The CEMP Sub-plans not requiring the Planning Secretary's approval must obtain the endorsement of the ER as being in accordance with the conditions of approval and all relevant undertakings made in the documents listed in Condition A1 of this schedule. Any of these CEMP Sub-plans must be submitted to the ER with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before construction or where construction is phased no later than one (1) month before the commencement of that phase.	Section 1.5
C9	Any of the CEMP Sub-plans to be approved by the Planning Secretary must be submitted to the Planning Secretary with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before construction or where construction is phased no later than one (1) month before the commencement of that phase.	Section 1.5
C10	Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Planning Secretary or endorsed by the ER (whichever is applicable), unless otherwise agreed by the Planning Secretary. The CEMP and CEMP Sub-plans , as approved by the Planning Secretary or endorsed by the ER (whichever is applicable), including any minor amendments approved by the ER , must be implemented for the duration of construction. Where construction of Stage 1 of the CSSI is phased, construction of a phase must not commence until the CEMP and CEMP Sub-plans for that phase have been approved by the Planning Secretary or certified by the ER upon nomination by the Planning Secretary (whichever is applicable).	Section 1.5
D1	All reasonably practicable measures must be implemented to minimise the emission of dust and other air pollutants during construction.	Section 7.1

Revised Environmental Management Measures

ID	Revised Environmental Mitigation Measure	Document Reference
AQ1	<p>The following best-practice dust management measures would be implemented during all construction works:</p> <ul style="list-style-type: none"> Regularly wet-down exposed and disturbed areas including stockpiles, especially during dry weather Adjust the intensity of activities based on measured and observed dust levels and weather forecasts Minimise the amount of materials stockpiled and position stockpiles away from surrounding receivers 	Section 7.1

ID	Revised Environmental Mitigation Measure	Document Reference
	<ul style="list-style-type: none"> Regularly inspect dust emissions and apply additional controls as required Consider all relevant measures listed in the UK IAQM corresponding to the highest level of risk determined around each Stage 1 construction site. 	
AQ2	Plant and equipment would be maintained in a proper and efficient manner. Visual inspections of emissions from plant would be carried out as part of pre-acceptance checks.	Section 7.1
AQ3	<p>The following best-practice odour management measures would be implemented during relevant construction works:</p> <ul style="list-style-type: none"> The extent of opened and disturbed contaminated soil at any given time would be minimised Temporary coverings or odour suppressing agents would be applied to excavated areas where appropriate Regular monitoring would be conducted during excavation to verify that no offensive odours are being detected beyond the site boundary 	Section 7.1

Construction Environmental Management Framework

ID	CEMF requirement	Document Reference
13.1a	<p>i. Minimise gaseous and particulate pollutant emissions from construction activities as far as reasonably practicable.</p> <p>ii. Identify and control potential dust and air pollutant sources.</p>	<p>Section 7.1</p> <p>Section 6 and Section 7.1</p>
13.2a	<p>i. The air quality mitigation measures as detailed in the environmental approval documentation.</p> <p>ii. The requirements of any approval and applicable licence conditions.</p> <p>iii. Site plans or maps indicating locations of sensitive receivers and key air quality/dust controls.</p>	<p>Section 7.1</p> <p>Section 7.1</p> <p>CEMP</p>

ID	CEMF requirement	Document Reference
	iv. The responsibilities of key project personnel with respect to the implementation of the plan.	Section 8.1
	v. Air quality and dust monitoring requirements.	Section 8.3
	vi. Compliance record generation and management.	Section 8.3
13.2b	i. Meteorological conditions will be monitored and appropriate responses will be organised and undertaken periodically by the Principal Contractor.	Section 8.3
	ii. Regular visual monitoring of dust generation from work zones.	Section 8.3
	iii. Monitoring emissions from plant and construction vehicles to ensure they have appropriate emission controls and are being maintained correctly.	Section 8.3
13.2c	i. Records of any meteorological condition monitoring.	Section 8.3
	ii. Records of any management measures implemented as a result of adverse, windy weather conditions.	Section 8.3
	iii. Records of air quality and dust inspections undertaken.	Section 8.3
13.3a	i. Plant and equipment will be serviced and maintained in good working order to reduce unnecessary emissions from exhaust fumes.	Section 7.1
	ii. Water suppression will be used for active earthwork areas, stockpiles, unsurfaced haul roads and loads of soil being transported to reduce wind-blown dust emissions.	Section 7.1
	iii. Wheel-wash facilities or rumble grids will be provided and used near the site exit points, as appropriate.	Section 7.1
	iv. Dust extraction and filtration systems will be installed for tunnel excavation works and deep excavation with limited surface exposure.	Section 7.1

Environment Protection Licence

The Project construction activities are designated as '**Railway activities—railway infrastructure construction**' under Schedule 1 of the POEO Act. Scheduled activities under clause 48 of the POEO Act, require an Environmental Protection Licence (EPL) for the premise at which a scheduled activity is carried on. The EPL typically regulates the emissions of potentially offensive odours and dust.

The AQMP will address the following EPL requirements (**placeholder**):

ID	EPL Condition	Document Reference