

PRECINCT OPERATIONAL AIR QUALITY MANAGEMENT PLAN

Moorebank Intermodal Precinct – West
Precinct Stage 2

Moorebank Intermodal Precinct – West Precinct Stage 2

SSD 7709

Precinct Operational Air Quality Management Plan

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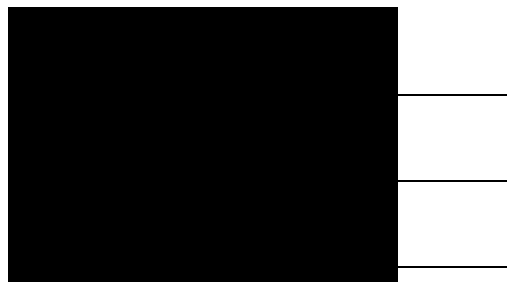
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003	17/04/2019	Final Draft addressing ER and client comments		
004	17/05/2019	Revision to address LCC comments and real-time monitor location updates to Figure 3-2		
005	7/06/2019	Revision to address LCC and DPE comments		
006	28/06/2019	Update to reflect DP&E comments and new OSD9 layout		
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017	16/01/2026	Updated following 2025 annual review		

Context

This Precinct Operational Air Quality Management Plan (POAQMP) is for operational activities being undertaken across the Moorebank Intermodal Precinct (MIP) (formerly Moorebank Logistics Park), in Moorebank, New South Wales under the Moorebank Precinct East (MPE) Stage 1 (SSD 6766), MPE Stage 2 (SSD 7628) and Moorebank Precinct West (MPW) Stage 2 (SSD 7709) development consents.

The MPE Operational AQMP (OAQMP) was originally approved by the then Department of Planning, Industry and Environment in accordance with condition of consent (CoC) B59 of the MPE Stage 2 development consent and also integrated air quality management and monitoring requirements of the MPE Stage 1 development consent, prior to the commencement of operations at the MPE Site.

The MPW Stage 2 (SSD 7709) development consent was originally issued by the Independent Planning Commission on 11 November 2019; and modified by the NSW Land & Environment Court on 24 December 2021.

CoC B47A of the MPW Stage 2 development consent requires the preparation and approval of a POAQMP for the entire precinct (MPE and MPW) prior to commencement of operations of the MPW Stage 2 development. CoC B47A allows for the update of the existing approved MPE OAQMP to apply, provided it is amended to apply to and address air quality impacts of the MPW development.

This POAQMP has been prepared accordingly and satisfies the requirements of the MPE Stage 1, MPE Stage 2 and MPW Stage 2 development consents.

Acronyms and Definitions

Acronym / Term	Meaning
CEMP	Construction Environmental Management Plan
CO	Carbon monoxide
CoC	Conditions of Consent
Commonwealth CoA	Commonwealth Conditions of Approval
DCCEEW	Department of Climate Change, Energy, the Environment and Water (formerly DotEE, now NEPA)
DNSDC	Defence National Storage and Distribution Centre
DotEE	Department of the Environment and Energy (now NEPA)
DPE	Department of Planning and Environment (formerly the Department of Planning, Industry and Environment)
DPHI E&H	DPHI Environment and Heritage (formerly OEH)
DPHI	Department of Planning, Housing and Infrastructure (formerly DPE)
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
EPA	NSW Environment Protection Authority
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
ER	Environmental Representative
ESR	ESR Australia & New Zealand
Facility	The MPE Concept (MP10_0193), MPE Stage 1 (SSD 6766) and MPE Stage 2 (SSD 7628) Project, including the operation of the IMEX terminal, warehousing and distribution facilities. A rail link is included as part MPE Stage 1 (SSD 6766) and connects the Facility to the SSFL.

Acronym / Term	Meaning
FCMMs	Final Compilation of Mitigation Measures
g	gram
GFA	Gross floor area
GHG	Greenhouse gas
HC	Hydrocarbon
HSE	Site Health, Safety and Environment
HV	Heavy vehicles
IMEX	Import Export Terminal. Includes the following key components: • Truck processing, holding and loading areas with entrance and exit from Moorebank Avenue • Rail loading and adjacent container storage areas serviced by container handling equipment • Administration facility and associated car parking with light vehicle access from Moorebank Avenue.
IMT	Intermodal Terminal
INTS	Interstate terminal
km	kilometre
LCC	Liverpool City Council
LNG	Liquefied natural gas
LPG	Liquefied petroleum gas
LV	Light vehicles
m	metre
MIP	Moorebank Intermodal Precinct (formerly SIMTA and/or Moorebank Logistics Park)- Refers to MPE and MPW

Acronym / Term	Meaning
MIP Approvals	• MPE Concept Approval received 29 September 2014 (MP10_0193) • MPE Stage 1 approved 12 December 2016 (SSD 6766) • MPE Stage 2 approved 31 January 2018 (SSD 7628) • MPW Concept and Stage 1 approved 3 June 2016 (SSD 5066) • MPW Stage 2 approved 11 November 2019; modified by the NSW Land & Environment Court on 24 December 2021 (SSD 7709)
MPE	Moorebank Precinct East
MPW	Moorebank Precinct West
NEPA	National Environmental Protection Agency
NEPM AAQ	National Environment Protection (Ambient Air Quality) Measure
NO ₂	Nitrogen dioxide
NO _x	Oxides of nitrogen
OEH	Office of Environment and Heritage (now DPHI E&H)
OEMP	Operational Environmental Management Plan
OTAMP	Operational Traffic and Access Management Plan
PAH	Polycyclic aromatic hydrocarbons
PM _{2.5}	Particulate matter 2.5 micrometres or less in diameter
PM ₁₀	Particulate matter 10 micrometres or less in diameter
POEO Act	Protection of the Environment Operations Act 1997 (NWS)
Primary Conditions	Conditions specific to the development of the management plan
OAQMP	Operational Air Quality Management Plan
OEMP	Operational Environmental Management Plan

Acronym / Term	Meaning
Offensive Odour	Offensive odour means an odour: (a) that, by reason of its strength, nature, duration, character or quality, or the time at which it is emitted, or any other circumstances: (i) is harmful to (or is likely to be harmful to) a person who is outside the premises from which it is emitted, or (ii) interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted, or (b) that is of a strength, nature, duration, character or quality prescribed by the regulations or that is emitted at a time, or in other circumstances, prescribed by the regulations.
Operational personnel	All persons, including sub-contractors and tenants working on the MIP.
POAQMP	Precinct Operational Air Quality Management Plan
Rail Link	Part of MPE Stage 1 (SSD 6766), connecting the MPE Site to the SSFL. The Rail Link is to be utilised for the operation of the Facility.
RtS	Response to Submissions
Secondary Conditions	Conditions related to the environmental aspects associated with the plan
SME	School of Military Engineering
SO ₂	Sulphur dioxide
SSD	State significant development
SSFL	Southern Sydney Freight Line
TEU	Twenty-foot equivalent
TfNSW	Transport for New South Wales
TSP	Total suspended particles
VOCs	Volatile organic compounds

Acronym / Term	Meaning
WOEMP	Warehouse Operational Environmental Management Plan

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Appendix A Evidence of Consultation (MPE Only)

1. Introduction

The Moorebank Intermodal Precinct (MIP) is a logistics and intermodal precinct that has been approved for construction and operation via a number of State significant development (SSD) consents:

- Moorebank Precinct East (MPE) Concept Approval (MP10_0193)
- MPE Stage 1 approval (SSD 6766)
- MPE Stage 2 approval SSD 7628)
- Moorebank Precinct West (MPW) Concept and Stage 1 Approval (SSD 5066)
- MPW Stage 2 approval (SSD 7709).

This Precinct Operational Air Quality Management Plan (POAQMP) has been developed to manage air quality impacts during operations of both MPE and MPW, hereafter referred to as the “MIP”

This POAQMP addresses the relevant requirements of the Project Approvals, including the Environmental Impact Statement (EIS), Response to Submissions (RtS) and Minister’s Conditions of Consent (CoC), and all applicable guidelines and standards specific to the management of air quality during operations of the MIP.

1.1. Background

The MIP is an integral component of the Freight, Ports and Transport strategies of both the NSW and Commonwealth governments to help manage the challenges of an expected tripling of freight volumes at Port Botany by 2031.

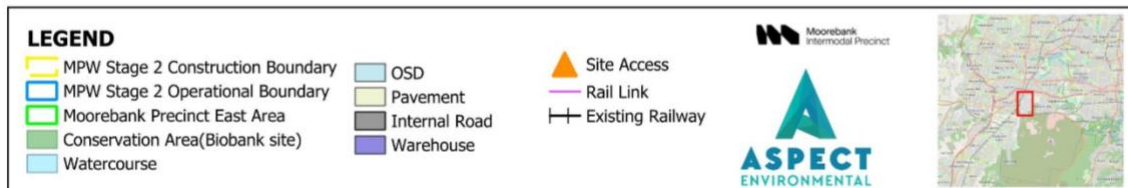
The MIP aims to streamline the freight logistics supply chain from port to store, deliver savings to businesses and consumers, and help service the rapidly growing demand for imported goods in south-west Sydney. It is located approximately 27 kilometres (km) south-west of the Sydney Central Business District and approximately 26km west of Port Botany within the Liverpool Local Government Area.

The MIP is divided into an East Precinct and a West Precinct, located east and west of Moorebank Avenue respectively, and the layout of the MIP is shown in Figure 1-1.

1.2. Development Ownership

In 2022, LOGOS joined the ESR group of companies and since August 2024, the LOGOS and ESR operations have been integrated to now operate under the name ESR Australia & NZ (ESR). The applicant/ approval holder entity remains unchanged at this stage until further notice and references to LOGOS and LOGOS authored documents and/or plans may continue and remains relevant where LOGOS and ESR are used interchangeably.

Figure 1-1 MIP operation layout



1.3. Purpose and Application

This POAQMP has been developed to address the planning instruments and guidelines listed in Section 2.1 and Section 2.2 of this document, as well as the requirements of:

MPE:

- MPE Stage 1 CoC E14 and G6 (SSD 6766)
- MPE Stage 2 CoC B59, B60, B61 and C7 (SSD 7628)
- the EPBC Act Approval and Mitigation Measures (EPBC 2011/6229).

MPW:

- MPW Concept and Stage CoC B11 and E28 (SSD 5066)
- MPW Stage 2 CoC B46, B47, B47A, B47B, B132, C1, C5 and C6 (SSD 7709)
- the EPBC Act Approval and Mitigation Measures (EPBC 2011/6086).

The POAQMP identifies the environmental management measures that will be applied to activities undertaken across the MIP to manage identified air quality risks during the operational phase of this project. The specific CoC and Final Compilation of Mitigation Measures (FCMMs) relevant to the development of this plan are identified in Section 2.2.

The most recent, approved version of this plan will be implemented to manage air quality risks during Precinct operations and/or activities.

1.4. Progressive implementation of the OEMP

The proposed progressive implementation of the OEMP is detailed in Section 1.5 of the MPE Stage 2 OEMP and Section 1.5 of the MPW Stage 2 OEMP.

MPE Stage 2 (SSD 7628) CoC B59 and MPW Stage 2 (SSD 7709) CoC 47A require that an POAQMP be prepared for the entire MIP, including both the East Precinct and the West Precinct. This POAQMP has been prepared to satisfy these conditions and will apply progressively to operational areas as they come online on both the East and West sides of the Precinct.

In accordance with MPE Stage 2 CoC C6 (SSD 7628) each MPE warehouse tenant will also prepare a Warehouse OEMP (WOEMP) based on the requirements of the MPE Stage 2 OEMP and sub-plans prior to occupation of the warehouse. The Secretary will be notified one month prior to commencement of operation of each new MPE warehouse in accordance with CoC A18 (SSD 7628). The WOEMP will be submitted to the Secretary for approval prior to commencement of operation of the warehouse.

1.4.1. Relationship of Stages

OEMPs and sub-plans are applicable to the entire MIP. However, as areas become progressively operational, the remaining active construction areas will continue to be managed in accordance with the relevant Construction Environmental Management Plan (CEMP) and sub-plans; conversely, operational areas will be managed in accordance with the relevant OEMP and sub-plans.

Operation of the site will only commence once the relevant OEMP and sub-plans have been approved by the Secretary and Minister (or delegate) of the Minister responsible for administering the EPBC Act.

The Environmental Representative (ER), under MPE Stage 2 CoC C24(d) (SSD 7628), is required to review the CEMP and OEMP to ensure they are “consistent with requirements of the consent.” The ER will continue to review and endorse any proposed changes to the MPE Stage 2 CEMP and subplans until such time construction is complete and the MIP East Precinct site is fully operational. The ER will also review and endorse the updated figures for all MPE operational documentation to ensure parity between construction and operational documentation. The operational figures will then be submitted to Department of Planning, Housing and Infrastructure (DPHI) for information as described in Section 1.4.2.

Until the entire MIP is operational, all construction zones will be fenced off to provide clear delineation between construction zones and the operational facilities.

1.4.2. Triggers

Both the MPE and MPW consents require notification to the Department / Secretary prior to the commencement of operation, as follows:

- MPE Stage 2 (SSD 7628) – CoC A18 requires the Secretary will be notified one month prior to commencement of operation of each new area. The notification will include updated figures detailing the new areas of operation which will fall under the remit of the OEMP as well as the reduced construction areas. As described in Section 1.4.1, the updated areas will have been endorsed by the ER prior to submission to the Secretary for approval.
- MPW Stage 2 (SSD 7709) – CoC A46 requires the date of commencement of operation be notified to the Department in writing at least 2 weeks before that date. This requirement has been satisfied and operations within MPW Stage 2 have commenced.

Following notification, the relevant OEMP and each sub-plan will be reviewed, updated and approved with the new operational site layout, while the relevant CEMP and applicable sub-plans will be revised to show the reduced area of construction.

1.5. Structure of the POAQMP

Condition A16 and A17 of the MPE Stage 2 consent (SSD 7628) permits combining strategies, plans and programs, subject to the approval of the Secretary. The requirements of both SSD 6766 and SSD 7628 that relate to the management of air quality were combined into one plan. Approval was sought from the Secretary on the 25 March 2019. The OAQMP was subsequently prepared and approved in 2019, with the latest version (version 11) revised and approved to include relevant changes resulting from the MPE Stage 2 Modification 2 approval in January 2020.

Commencement of operation on the MPE Site has occurred prior to commencement of operation on the MPW Site. Condition B59 of the MPE Stage 2 consent (SSD 7628) requires an POAQMP be prepared for the entire precinct where this sequence of operation occurs (and an OAQMP for MPW has not already been prepared and approved). This updated POAQMP, therefore, considers and covers matters of air

quality management for the entire Precinct (East and West) during the operational phase.

This POAQMP addresses the relevant conditions and FCMMs from all consents across the Precinct (refer to Table 2-2 and Table 2-5).

1.6. Objectives and Targets

Table 1-1 outlines the objectives and targets set out for the MIP for the management of air quality during operation. These objectives and targets were developed based on collective industry experience and best practice and endorsed by the relevant ER.

Table 1-1 Objectives and targets

Objective	Target	Timeframe	Accountability
Ensure compliance with relevant CoC, applicable legislative and other requirements	No written warnings or infringement notices	Ongoing	Site HSE Manager/Advisor
Ensure that reasonable and feasible management measures are implemented to manage impacts on surrounding residents and commercial stakeholders	No exceedances of air quality criteria No community complaints regarding air quality (e.g. visible nuisance dust, visible exhaust fumes)	Ongoing	Site HSE Manager/Advisor

1.7. Consultation

The POAQMP has also been prepared in consultation with relevant stakeholders. A description and summary of the consultations and agreed outcomes and actions are outlined in Table 1-2 and refer to Appendix A for evidence of consultation. CoC B47A of the MPW Stage 2 (SSD 7709) consent does not require consultation.

Table 1-2 Consultation summary

Agency	Date	Person Contacted	Comment	Status
MPE OAQMP				
Liverpool City Council (LCC)	16/05/19	██████████	Updates to Author Details table and Section 2.1 to replace incorrect reference to AS/NZS standard.	Closed
EPA	29/04/19	██████████ (Unit Head, Sydney Industry Section)	Declined to comment on management plans and post approval documentation	Closed

2. Statutory Requirements

2.1. Legal and Other Obligations

Details about the legislation, planning instruments and guidelines considered during development of this plan are listed below, with specific details provided in the Legislation Register within Appendix B of the OEMP.

- *Environmental Planning and Assessment Act 1979 (EP&A Act)*
- *Environment Protection and Biodiversity Act 1999 (EPBC Act)*
- *Fuel Quality Standards Act 2000 (Commonwealth)*
- *Protection of the Environment Operations Act 1997 (POEO Act)*
- *Protection of the Environment Operations (Clean Air) Regulation 2010*

Additional legislation, standards and guidelines relating to the management of air quality include:

- Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales ("Approved Methods") (NSW Environment Protection Authority (EPA), 2016)
- AS/NZS 3580.1.1:2016- Methods for sampling and analysis of ambient air - Part 1.1: Guide to siting air monitoring equipment
- Australian / New Zealand Standard AS/NZS 3580.10.1:2016 (Methods for Sampling and Analysis of Ambient Air, Method 10.1 Determination of Particulate Matter – Deposited Matter – Gravimetric Method)
- EU Stage IIIA and IV emission standard (EU Directive 2014/26/EC) (Parliament of the European Union, 2014)
- Infrastructure Sustainability Council (ISC) for operation specific requirements
- National Environment Protection (Ambient Air Quality) Measure (NEPM AAQ)¹ (Australian Government, 2003)
- US Tier US EPA Tier 3 and 4 emissions standards (US EPA, 2014).

2.2. MPE- Development Approvals

The operation of the MPE was approved under both the EP&A Act and the EPBC Act. Both these approvals have environmental conditions relevant to the operational works for the MPE, which are discussed below.

The operational requirements for the Development, including consultation, impact mitigation and management, are documented in the following suite of documents:

- EPBC Act Approval (No. 2011/6229), March 2014
- MPE Concept Approval (MP 10_0193), approved 29 September 2014
- MPE Concept Plan – Response to Submissions (RtS) (Urbis, December 2013)
- MPE Stage 1 SSD 6766, approved 13 March 2018 (superseding initial approval 12 December 2016)

¹It is noted that the purpose of the AAQ NEPM is to attain ambient air quality that allows for the adequate protection of human health and wellbeing', and compliance with the AAQ NEPM is assessed through air quality monitoring data collected and reported by each state and territory. (<http://www.nepc.gov.au/nepms/ambient-air-quality>)

- MPE Stage 1 – Environmental Impact Statement (Arcadis Australia Pacific Pty Limited, May 2015)
- MPE Stage 1 – Response to Submissions (Arcadis Australia Pacific Pty Limited, September 2015), including Final Compilation of Mitigation Measures (FCMMs)
- MPE Stage 2 SSD 7628, approved 31 January 2018
- MPE Stage 2 SSD 7628 Modification 2, approved on 31 January 2020
- MPE Stage 2 – Environmental Impact Statement (Arcadis Australia Pacific Pty Limited, December 2016)
- MPE Stage 2 – Response to Submissions (Arcadis Australia Pacific Pty Limited, July 2017), including FCMMs.

2.2.1. MPE EPBC Act Approval

The EPBC Act approval for the MPE Concept was granted by the Federal Minister for the Environment in March 2014 (No. 2011/6229). Approval was required due to impacts on listed threatened species and communities (Sections 18 and 18A of the EPBC Act) and Commonwealth land (Sections 26 and 27A of the EPBC Act).

The operation of the MPE has been designed to be consistent with the EPBC Act Approval conditions. Specific conditions and commitments that are required to be addressed in this plan are identified within Table 2-1. The table also identifies where each of the Conditions of Approval (CoA) and commitments have been satisfied.

Table 2-1 MPE – EPBC Act CoA

Commonwealth CoA	Requirement	Document Reference
8	For the better protection of Commonwealth land, the person taking the action must engage a suitably qualified expert(s) to prepare an Operation Environment Management Plan (OEMP) for the approval of the Minister. The OEMP must include in relation to operation of the proposed facility:	The OEMP [PREC-QPMS-EN-PLN-0001] and relevant sub-plans, including the POAQMP
	a) identification and quantification of all potential impacts associated with noise, vibration, air quality, traffic and light spill (including cumulative impacts associated with the separately approved but related and adjacent intermodal terminal facility project, EPBC approval 2011/6086) upon Commonwealth land. Consideration must be given to people and communities at SME, DNSDC, Defence housing, and the environment more generally in neighbouring bushland areas. Of note, the air quality assessment must quantify all emissions of carbon monoxide,	Section 3.1

Commonwealth CoA	Requirement	Document Reference
	nitrogen dioxide, PM _{2.5} and PM ₁₀ arising from project-related sources identified in the EIS.	
	b) refined details (including implementation timeframes) for the mitigation measures outlined in the EIS (sections 7.4.2, 7.4.6, 7.4.7, 7.4.8 and 7.4.9) and summarised at Annexure A	Section 3.3; Table 3-8
	c) refined details of how heavy vehicles entering and exiting the site will be processed, including information on access and circulation both into, and within, the intermodal facility grounds;	See Operational Traffic and Access Management Plan (OTAMP) [PREC-QPMS-EN-PLN-0009]
	d) measures to ensure no heavy vehicles entering or exiting the intermodal facility park, or wait, on Moorebank Avenue;	See OTAMP [PREC-QPMS-EN-PLN-0009]
	e) identification of the trigger values and criteria for all matters mentioned in condition 8(b) (excluding light spill) that will be adopted for monitoring and managing potential impacts to those Commonwealth land	Section 4.1.1 and Section 4.1.2; Table 4-2
	f) details of a comprehensive monitoring program (including locations, frequency and duration) for: i. validating the anticipated impacts associated with condition 8(a), and ii. determining the effectiveness of mitigation/ management measures (including the success of public transport incentives)	Section 4

Annexure A- Summary of Mitigation Measures

Air	Operation The following mitigations and compensatory measures will be undertaken, where feasible, to minimise potential impacts on local and regional air quality during operation of the SIMTA proposal: • Upgrade of rolling stock servicing the SIMTA site	Section 3.3; Table 3-8; AQ22
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Commonwealth CoA	Requirement	Document Reference
	Use of electrically powered container handling equipment in lieu of diesel equipment	Section 3.3; Table 3-8; AQ18
	Use of LPG forklifts in lieu of diesel forklifts	Section 3.3; Table 3-8; AQ21
	Minimise truck movements through the efficient management of deliveries and dispatches	Section 3.3; Table 3-8; AQ13
	Minimise truck idling and queuing on-site	Section 3.3; Table 3-8; AQ1, AQ10, AQ15

2.2.2. MPE EP&A Act consents

The MPE Development was approved under Part 4, Division 4.7 (previously Division 4.1 prior to 1 March 2018) of the EP&A Act. Approval for MPE Stage 1 was originally received on 12 December 2016 (SSD 6766) and subject to appeal, with revised CoC issued from the Land and Environment Court on 13 March 2018; approval for MPE Stage 2 was received on 31 January 2018 (SSD 7628).

The CoC include requirements to be addressed in this plan and delivered during operation of the Facility. These requirements, and where they are addressed in this document are provided within Table 2-2 for CoC relating to SSD 6766 and Table 2-3 for CoC relating to SSD 7628.

In the compliance tables, Primary Conditions are specific to the development of the management plan, while Secondary Conditions are conditions which are related to the environmental aspects associated with the plan.

Table 2-2 CoC of SSD 6676 (MPE Stage 1)

CoC	Requirement	Document Reference
Primary Condition		
F4	The Applicant shall prepare and implement (following approval) an Operation Environmental Management Plan (OEMP). The Plan shall outline the environmental management practices and procedures that are to be followed during operation, and shall be prepared in consultation with relevant agencies and in accordance with the Guideline for the Preparation of Environmental Management Plans (Department of Infrastructure, Planning and Natural Resources, 2004). The Plan shall include, but not necessarily be limited to:	The OEMP [PREC-QPMS-EN-PLN-0001] and relevant sub-plans, including the POAQMP

CoC	Requirement	Document Reference
	f) details of management and monitoring of environmental performance, including the actions to be taken to address identified potential adverse environmental impacts (and any impacts arising from staging of the project construction). In particular, the following environmental performance issues shall be addressed in the Plan:	Section 3.3 Section 4
	iv) air emissions including measures for regular performance monitoring of air quality generated by the Project and measures to proactively respond to and deal with air quality complaints	Section 4 Section 4.6
Secondary Conditions		
E14	The Applicant shall carry out all feasible and reasonable measures to minimise dust generated by the Development.	Section 3.3; Table 3-6; AQ16
	Port shuttle operations must use:	
G6	a) Locomotives that incorporate available best practice noise and emission technologies. Prior to the construction of the rail link connecting to the site, the Applicant must submit a report to the Secretary for consideration and approval that has been prepared in consultation with TfNSW and the EPA that justifies the technology proposed and how it meets the objective of best practice noise and emission technologies; and	Section 3.3; Table 3-6; AQ11 Section 4.3; Table 4-5 Refer to the MPE Stage 1 Best Practice Review (Arcadis, 2017)
G12	All container handling equipment, purchased after 2019 must meet US EPA Tier 4 or EU Stage IV emission standard or achieve an equivalent emission control performance to those standards listed in this condition	Section 3.3; Table 3-6; AQ19 and AQ20 Refer to the MPE Stage 1 Best Practice Review (Arcadis, 2017)
G13	The Applicant must carry out any activity, or operate any plant, in or on the premises by such practicable means as may be necessary to prevent or minimise air pollution	Section 3.3; Table 3-6 Refer to the MPE Stage 1 Best Practice Review (Arcadis, 2017)

Table 2-3 CoC of SSD 7628 (MPE Stage 2)

CoC	Requirement	Document Reference
Primary Condition		
B59	The Applicant must prepare an Operational AQMP to the satisfaction of the Secretary for the entire precinct (MPE + MPW), unless this has been prepared and approved under an approval for the MPW site. The AQMP must be prepared by a suitably qualified and experienced person(s) and must form part of the OEMP required by condition C3. The AQMP must include:	The POAQMP
	a) identification of sources and quantify airborne pollutants	Section 3.1
	b) best practice reactive and proactive control measures that will be implemented for each emission source	Section 3.3; Table 3-8; AQ5, AQ6, AQ7
	c) provisions for the implementation of additional mitigation measures in response to issues identified during monitoring and reporting	Section 4.
	d) for all emission sources associated with site operations:	
	i) key performance indicator(s)	Section 4.1; Table 4-2
	ii) monitoring method(s)	Section 4.1; Table 4-2
	iii) location, frequency and duration of monitoring	Section 4.1; Table 4-2
	iv) record keeping	Section 4.1.2 Section 4.3; Table 4-5
	v) complaints register	Section 4.6
	vi) response procedures	Section 4.4 Section 4.5 Section 4.6 Section 4.7
	vii) compliance monitoring	Section 4.3 Section 4.7

CoC	Requirement	Document Reference
C7	The Applicant must ensure that the environmental management plans required under this consent are prepared in accordance with any relevant guidelines, and include:	
	a) detailed baseline data;	Section 3.1
	b) a description of:	
	i. the relevant statutory requirements (including any relevant approval, licence or lease conditions);	Section 2.2; Table 2-1, Table 2-2 CoC of SSD 6676 (MPE Stage 1) Table 2-3, Table 2-4 and Table 2-5Table 2-5
	ii. any relevant limits or performance measures/criteria; and	Section 4.1; Table 4-1 and Table 4-2
	iii. the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;	Section 4.1; Table 4-1 and Table 4-2
	c) a description of the management measures to be implemented to comply with the relevant statutory requirements, limits or performance measures/criteria;	Section 3.3; Table 3-8
	d) a program to monitor and report on the:	
	i. impacts and environmental performance of the development; and	Section 4.1
	ii. effectiveness of any management measures (see (c) above);	Section 4.1
	e) contingency plan to manage any unpredicted impacts and their consequences;	Section 4.5 Section 4.7
	f) a program to investigate and implement ways to improve the environmental performance of the development over time;	Section 4.2
	g) a protocol for managing and reporting any:	
	i. incidents and non-compliances;	Section 4.7

CoC	Requirement	Document Reference
	ii. complaints;	Section 4.6
	iii. non-compliances with statutory requirements; and	Section 4.7
	h) a protocol for periodic review of the plan.	Section 4.4
Secondary Conditions		
A32	All plant and equipment used at the site or to monitor the performance of the development must be:	
	a) maintained in a proper and efficient condition; and	Section 3.3; Table 3-8; AQ6, AQ7, AQ8 and AQ9
	b) operated in a proper and efficient manner.	Section 3.3; Table 3-8; AQ6, AQ10, AQ13, AQ14 and AQ15
B54	Best practice reactive and proactive management measures must be implemented to minimise dust generated during all works authorised by this consent	Section 3.3; Table 3-8; AQ16 Section 4.1.1; Table 4-1
B55	Deposited dust must not exceed an increase of 2g/m ² /month or maximum of 4g/m ² /month at the closest off-site sensitive receiver	Section 3.3; Table 3-8; AQ16 Section 4.1.1; Table 4-1
B60	The Applicant must ensure the development does not cause or permit the emission of any offensive odour (as defined in the POEO Act)	Section 3.3; Table 3-8; AQ17
B61	Equipment must be installed and operated in accordance with best practice to ensure that the development complies with all load limits, air quality criteria, air emission limits and air quality monitoring requirements as specified under this consent	Section 3.3; Table 3-8; AQ5, AQ6, AQ9, AQ10, AQ11, AQ17, AQ18, AQ19, AQ20, AQ21, AQ22

The Final Compilation of Mitigation Measures (FCMMs) are presented within the MPE Stage 1 RtS (Arcadis, September 2015), and the MPE Stage 2 RtS (Arcadis, July 2017) documents. The FCMMs as relevant to the Development and how they have been complied within this plan are provided in Table 2-4 and Table 2-5.

Table 2-4 Final Compilation of Mitigation Measures (MPE Stage 1)

FCMM	Requirement	Document Reference
0B	An Operational Environmental Management Plan (OEMP) will be prepared to provide the overarching framework for the management of all potential environmental impacts resulting from the operation of the Proposal. A number of operational related management plans have been prepared for the Proposal, including: ... Air Quality Management Plan ... The management plans, that will form the basis of the OEMP to be prepared for the Proposal will be based on the preliminary operation management plans listed above...	The OEMP [PREC-QPMS-EN-PLN-0001] and relevant sub-plans, including the OAQMP
Air Quality		
2B	The AQMP will be further progressed and incorporated into the OEMP for the Proposal. In accordance with the AQMP, the following will be addressed in the OEMP:	The POAQMP
	Implementation and communication of anti-idling policy for trucks and locomotives	Section 3.3; Table 3-8; AQ1, AQ2, AQ4, AQ10, AQ11, AQ15
	Provision of a point of contact for complaints for the community to report on excessive idling and smoky vehicles used within the Stage 1 site	Section 3.3; Table 3-8; AQ4
	Procedures to reject excessively smoky trucks visiting the site based on visual inspection	Section 3.3; Table 3-8; AQ8, AQ9
2C	The Proponent will undertake an air quality monitoring program during the initial phases of both construction and operation of the Proposal including: - Nuisance dust - Air Emissions – PM₁₀ and Nitrogen dioxide	Section 4.1
Best Practice Review: Air Quality		
4.1A	The following control measures will be progressively implemented during operation of the IMT:	

FCMM	Requirement	Document Reference
	A vehicle booking system, truck marshalling lanes and rejection of trucks that arrive early will be implemented / provided to minimise wait times and queuing. This system will be implemented on commencement of operation	Section 3.3; Table 3-8; AQ15
	An electrified locomotive shifter will be installed to reduce the need for excessive locomotive idling. This control will be implemented on commencement of operation	Section 3.3; Table 3-8; AQ11
	Where new reach stackers are procured, these would be selected to achieve best practice emissions performance to meet US EPA Tier 3/ Euro Stage IIIA standards	Section 3.3; Table 3-8; AQ20
	Electric gantry cranes to reduce use of diesel-powered equipment. This control will be implemented within seven years of commencement of operation of the Proposal or on the Proposal achieving an annual throughput of 250,000 TEU, whichever is the latter	Section 3.3; Table 3-8; AQ12
4.1B	The following policies and procedures will be developed and included within the OEMP for the Proposal:	
	- An anti-idle policy will be developed and communicated to locomotive and truck operators to minimise unnecessary idling. - Signs will be installed within the IMT to remind drivers of this policy and their obligations	Section 3.3; Table 3-8; AQ1, AQ2, AQ4, AQ10, AQ11, AQ15
	Maintenance plans will be updated to include a requirement to consider air emissions and where possible improve air emission performance at next overhaul/upgrade	Section 3.3; Table 3-8; AQ3
	Training will be provided to locomotive drivers to maximise fuel efficiency	Section 3.3; Table 3-8; AQ1
	Equipment with smoky exhausts (more than 10 seconds) should be stood down for maintenance based upon visual inspection	Section 3.3; Table 3-8; AQ8
	Trucks with smoky exhausts (more than 10 seconds) shall be rejected from the site based upon visual inspection	Section 3.3; Table 3-8; AQ9
	Loading and unloading will be coordinated where possible to minimise truck trip distances as they travel through Stage 1 site	Section 3.3; Table 3-8; AQ14

Table 2-5 Final Compilation of Mitigation Measures (MPE Stage 2)

FCMM	Requirement	Document Reference
0C	The Operational Environmental Management Plan (OEMP), or equivalent, for the Amended Proposal would be based on the following preliminary management plans: ... Air Quality Management Plan (Appendix M of the EIS) ...	The OEMP [PREC-QPMS-EN-PLN-0001] and relevant sub-plans, including the OAQMP
Air Quality		
3B	The Air Quality Management Plan (Ramboll, 2016), included within Appendix M of the EIS would be further progressed and integrated into the OEMP for the Amended Proposal. In accordance with the Air Quality Management Plan the following key aspects would be addressed in the OEMP:	The POAQMP
	Implementation and communication of anti-idling policy for trucks	Section 3.3; Table 3-8; AQ1, AQ2, AQ4, AQ10, AQ11, AQ15
	Complaints line for the community to report on excessive idling and smoky vehicles	Section 3.3; Table 3-8; AQ4
	Procedures to reject excessively smoky trucks visiting the site based on visual inspection	Section 3.3; Table 3-8; AQ9
3C	During construction and operation, real-time boundary monitoring would be used to measure site emissions and alert site personnel when dust triggers are breached. This monitoring would determine if the best practice measures are effective and/or if additional reactive controls are needed on any particular day.	Section 4.1
11G	Fuel efficiency of the operation plant/equipment will be assessed prior to selection, and where practical, equipment with the highest fuel efficiency and which uses lower GHG intensive fuel (e.g. biodiesel) will be used during operation.	Section 3.3; Table 3-8; AQ5, AQ23
11H	Implement adaptation measures to address medium and high rated risks detailed in the climate change risk assessment presented in the Greenhouse Gas (GHG) and Climate Change Risk Assessment (Appendix V of the EIS).	Refer to Urban Heat Island Management Strategy (UHIMS). Adaptation measures also addressed during detailed design.

2.3. MPW- Development Approvals

The operation of the MPW was approved under both the EP&A Act and the EPBC Act. Both approvals have environmental conditions relevant to the operational works for the MPW, which are discussed below.

The suite of documents relevant to the operation of the MPW are:

- EPBC Act Approval (EPBC 2011/6086), Department of the Environment and Energy (DotEE) (now NEPA), September 2016
- Variation of Conditions (EPBC 2011/6086), DotEE (now NEPA), September 2019
- Moorebank Intermodal Terminal Project – Environmental Impact Statement (Parsons Brinckerhoff, 2014)
- Moorebank Intermodal Terminal Response to Submissions Report (Parsons Brinckerhoff, 2015)
- Moorebank Intermodal Terminal Supplementary Response to Submissions Report (Parsons Brinckerhoff, 2015)
- MPW Concept and Stage 1 Approval (SSD 5066) as modified, approved 24 December 2020 (superseding original approval 3 June 2016)
- Consolidated MPW Stage 2 (SSD 7709) Development Consent (SSD 7709), approved on 11 November 2019 by NSW Independent Planning Commission (IPC); modified by the NSW Land & Environment Court on 24 December 2021
- MPW Stage 2 Environmental Impact Statement (Arcadis Australia Pacific Pty Limited, October 2016).
- MPW Stage 2 Response to Submissions (Arcadis Australia Pacific Pty Limited, July 2017).

2.3.1. MPW EPBC Act Approval

The EPBC Act approval for the MPW Concept was granted by DotEE (now NEPA) in September 2016 (No. 2011/6086). This approval was provided for the impacts on listed threatened species and communities (Sections 18 and 18A of the EPBC Act) and Commonwealth land (Sections 26 and 27A of the EPBC Act). The operation of the MPW Stage 2 development would be consistent with the EPBC Act Approval conditions.

Specific conditions and commitments that are required to be addressed in this plan are identified in Table 2-6. The table also identifies where each of the CoA and commitments have been satisfied.

Table 2-6 Operational noise limits dB(A)

Commonwealth	Requirement	Document Reference
10	Sections of the CEMP and OEMP relating to air quality must be prepared by a suitably qualified expert and must: Be consistent with the Air Quality Provisional Environmental Management Framework (2 July 2014), provided at Appendix O to the finalised EIS.	This POAQMP
	Incorporate all measures 10V to 10AH and 11A to 11H from Table 7.1 of the finalised EIS that are described as 'mandatory'.	Table 3-8 Section 4.1.1

Commonwealth	Requirement	Document Reference
	Explain how all measures 10V to 10AH and 11A to 11H from Table 7.1 of the finalised EIS that are described as 'subject to review' have been addressed.	Table 3-8 Section 4.1.1
	be approved by the Minister or a relevant New South Wales regulator.	TBC

2.3.2. MPW EP&A Act Consent

The MPW Concept and Stage 1 development was approved under the (then) Section 89E of the EP&A Act by the Planning Assessment Commission in June 2016 (SSD 5066) and subsequently modified 30 October 2019 and 24 December 2020.

The MPW Stage 2 (SSD 7709) development was approved under Part 4, Division 4.7 of the EP&A Act on 11 November 2019 and subsequently modified on 24 December 2020 and 30 September 2021. The Consolidated MPW Stage 2 (SSD 7709) Development Consent (SSD 7709) was reissued by the NSW Land & Environment Court on 24 December 2021.

The CoC include requirements to be addressed in this plan and delivered during operation of the Development. These requirements, and where they are addressed in this document are provided within Table 2-7 for CoC relating to SSD 5066 and Table 2-8 for CoC relating to SSD 7709.

In the compliance tables, Primary Conditions are specific to the development of the management plan, while Secondary Conditions are conditions which are related to the environmental aspects associated with the plan.

Table 2-7 CoC of SSD 5066 (MPW Concept and Stage 1)

CoC	Requirement	Document Reference
Secondary Conditions		
	Port shuttle operations must use:	
10	a) Locomotives that incorporate available best practice noise and emission technologies. Prior to construction of the rail link connecting to the site, the Applicant is to submit a report to the Secretary for consideration and approval that has been prepared in consultation with TfNSW and the EPA that justifies the technologies proposed and how it meets the objective of best practice noise and emission technologies; and b) Wagons that incorporate available best practice noise technologies including as a minimum, permanently coupled 'multi-pack' steering wagons using Electronically Controlled Pneumatic (ECP) braking with a wire based distributed power system (or better practice technology). Prior to the commencement of	Section 3.3 Table 3-8

CoC	Requirement	Document Reference
	operation, the Applicant is to submit a report to the Secretary for consideration and approval that has been prepared in consultation with TfNSW and EPA that justifies the technology proposed and how it meets the objective of best practice noise technologies	
B11	The Applicant shall carry out all feasible and reasonable measures to minimise dust generated by the Development	Section 3.3 Table 3-8 Section 4.1.1 Section 4.1.2

Table 2-8 CoC of SSD 7709 (MPW Stage 2)

CoC	Requirement	Document Reference
Primary Condition		
	A. Prior to commencement of operation of the MPW development, the Applicant must prepare an Operational AQMP (AQMP) for the entire precinct (MPE + MPW) and submit for the approval of the Planning Secretary. The Applicant may submit a plan approved under an approval for the MPE site, provided it is amended to apply to and address air quality impacts of the MPW development. The AQMP must be prepared by a suitably qualified and experienced person(s) and must form part of the OEMP required by condition C5. The AQMP must demonstrate how the development would comply with the conditions of this consent, and include:	This POAQMP
	a) Identification of sources and quantify airborne pollutants	Section 3.1 Section 3.2
B47A	b) Best practice reactive and proactive control measures that will be implemented for each emission source	Section 3.3 Section 4.1
	c) Provisions for the implementation of additional mitigation measures in response to issues identified during monitoring and reporting.	Section 4.3 Section 4.4
	d) for all emission sources associated with site operations:	Section 4.1
	(i) key performance indicator(s);	Section 4.2
	(ii) monitoring method(s);	Section 4.3
	(iii) location, frequency and duration of monitoring;	Section 4.4
	(iv) record keeping;	Section 4.4
	(v) complaints register;	Section 4.5
	(vi) response procedures; and	Section 4.5

CoC	Requirement	Document Reference
	(vii) compliance monitoring	Section 4.6 Section 4.7
	e) phased conversion to reach stackers of Tier 4 standard for particle emissions (or equivalent standard that is satisfactory to the Secretary) at the MPW Site within ten years of first operation of the Site.	Table 3-6
B47B	The Applicant must: (a) not commence operation until the AQMP is approved by the Planning Secretary; and (b) operate the development in accordance with the AQMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).	This POAQMP
	Management plans required under this consent must be prepared in accordance with relevant guidelines and include:	
	a) detailed baseline data;	Section 3.1.2
	b) details of: i. the relevant statutory requirements (including any relevant approval, licence or lease conditions); ii. any relevant limits or performance measures/criteria; and iii. the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures.	Section 2
C1	c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits or performance measures and criteria;	Section 3.3 Table 3-8
	d) a program to monitor and report on the: i. impacts and environmental performance of the development; and ii. effectiveness of any management measures (see (c) above)	Section 4.1 Section 4.2 Section 4.3 Section 4.4
	e) contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	Section 4.4
	f) a program to investigate and implement ways to improve the environmental performance of the development over time;	Section 4.4
	g) a protocol for managing and reporting any:	Section 4.7

CoC	Requirement	Document Reference
	i. incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria); ii. complaints; iii. failure to comply with statutory requirements;	Section 4.6
	h) a protocol for periodic review of the plan.	Section 4.4
C5	The Applicant must prepare an Operational Environmental Management Plan (OEMP) in accordance with the requirements of condition C1 and submit it to the Planning Secretary for approval.	MPW Stage 2 OEMP
	As part of the OEMP required under Condition C5 of this consent, the Applicant must include the following: (a) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development; NSW Government 37 Moorebank Intermodal Precinct West – Stage 2 Department of Planning and Environment (SSD 7709) (b) describe the procedures that would be implemented to: i. keep the local community and relevant agencies informed about the operation and environmental performance of the development; ii. receive, handle, respond to, and record complaints; iii. resolve any disputes that may arise; iv. respond to any non-compliance; v. respond to emergencies; and (c) include the following environmental management plans: i. Operational Traffic and Access Management Plan (see Condition B118); ii. Stormwater Infrastructure Operation and Maintenance Plan (see Condition B36); iii. Stormwater Quality Monitoring Program (see Condition B38); iv. Landscape Vegetation Management Plan (see Condition B82); v. Operational Traffic and Access Management Plan (see Condition B118); vi. (vi) Operational Noise Management Plan (see Condition B136); and vii. (vii) Operational Flora and Fauna Management Plan (see Condition B160)	This POAQMP
Secondary Conditions		
B46	The Applicant must ensure dust emissions generated by the development do not cause exceedances of the following criteria at private property not associated with the development: a) 2g/m²/month maximum increase in deposited dust level; and b) 4g/m²/month maximum deposited dust level.	Section 3.3 Table 3-8 Section 4.1.1 Section 4.1.2

CoC	Requirement	Document Reference
B47	The Applicant must ensure the development does not cause or permit the emission of any odour which may be offensive odour (as defined in the POEO Act) outside of the premises (as defined in the POEO Act)	Section 3.3 Table 3-8
Terminal and rail port shuttle operations must comply with the following:		
B132	a) best practice plant for the intermodal terminal facility, including electronic automated container handling equipment or equipment with equivalent sound power levels; b) Locomotives using the development must meet the air emissions standards and noise requirements as specified in the Moorebank Precinct East – Stage 1 Project: Best Practice Review (SSD 14-6766), prepare by Arcadis dated 20 September 2017 c) wagons using the development must incorporate available best practice noise technologies such as "one-piece" freight bogies or three-piece freight bogies fitted with cross-bracing or steering arms; and permanently coupled 'multi-pack' steering wagons using Electronically Controlled Pneumatic (ECP) braking with a wire based distributed power system (or better practice technology); d) automatic rail lubrication equipment must be used in accordance with ASA Standard T HR TR 00111 ST Rail Lubrication and top of rail friction modifiers, where required; and e) the rail cross sectional profile must be maintained in accordance with ETN-01-02 Rail Grinding Manual for Plain Track to ensure the correct wheel/ rail contact position and hence to encourage proper rolling stock steering	Section 3.3 Table 3-8
B188	All plant and equipment used on site, or to monitor the performance of the development must be: a) maintained in a proper and efficient condition; and b) operated in a proper and efficient manner.	Section 3.3 Table 3-8

The FCMMs applicable to MPW are included within the SSD 7709 consent. Those relevant to this POAQMP and how they have been complied within this plan are provided in Table 2-9.

Table 2-9 Final Compilation of Mitigation Measures (MPW Stage 2)

FCMM	Requirement	Document Reference
0C	The Operational Environmental Management Plan (OEMP), or equivalent, for the Proposal would be based on the following preliminary management plans: ... • Air Quality Management Plan (Appendix O of the EIS)	This POAQMP

FCMM	Requirement	Document Reference
...		
Air Quality		
3C	Best practice air quality mitigation measures would be implemented for the operational phase of the Proposal including: Locomotives • Ensure locomotives are well maintained in accordance with the manufacturer's specification or relevant operational plan. Update maintenance plans to include a requirement to consider air emissions and where possible improve air emission performance at next overhaul/upgrade (for SIMTA operational fleet) • Ultra Low Emitting Switch Locomotives would be considered during the procurement process, having regard to technical, logistical and financial considerations • Anti-idle policy and communication / training for locomotive operators • Unnecessary idling avoided through driver training and site anti-idle policy • Driver training for fuel efficiency. Container Handling • New reach stackers to achieve emissions performance equivalent to US EPA Tier 3 / Euro Stage IIIA standards • Unnecessary idling avoided through driver training and site anti-idle policy • Equipment with smoky exhausts (more than 10 seconds) should be stood down for maintenance. Trucks • Gate appointment system, truck marshalling lanes and rejection of trucks that arrive early to minimise wait times and queuing • Development of an anti-idle policy and communication through the provision of information signs • Unnecessary idling avoided through driver training and site anti-idle policy • Loading and unloading coordinated to minimise truck trip distances as they travel through site.	Section 3.3 Table 3-8
3F	The Air Quality Management Plan (Appendix O of the EIS), would be further progressed and incorporated into the OEMP for the Proposal. In accordance with the AQMP the following key aspects would be addressed in the OEMP: • Implementation and communication of anti-idling policy for trucks and locomotives	Section 3.3 Table 3-8

FCMM	Requirement	Document Reference
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- Complaints line for the community to report on excessive idling and smoky vehicles
- Procedures to reject excessively smoky trucks visiting the site based on visual inspection.

3G

SIMTA would restrict port shuttle locomotives from entering the MPW Stage 2 rail link, that do not meet the following air emissions standards:

Section 3.3

Table 3-8

<i>Locomotive Type</i>	<i>Standard</i>	<i>Periodic Improvements</i>	<i>Ultimate Outcome</i>
<i>Existing locomotives</i>	<i>Operated with diesel particulate emissions less than 0.30 grams per kilowatt hour.</i>	<i>Any overhauls of existing locomotives after the commencement of operations</i>	<i>All existing locomotives to comply with 7 years of operation</i>
<i>New locomotives</i>	<i>Operated with diesel particulate emissions less than 0.27 and NOx emissions of less than 7.37 grams per kilowatt hour.</i>	<i>Any new locomotives ordered after the commencement of operations</i>	<i>NA</i>
	<i>Operated with diesel particulate emissions less than 0.13 and NOx emissions of less than 7.37 grams per kilowatt hour.</i>	<i>Any new locomotives ordered after 5 years of the commencement of operations</i>	<i>NA</i>

2.4. Roles and Responsibilities

All personnel undertaking operational activities within the MIP are responsible for the implementation of this POAQMP. The key roles and responsibilities for MIP personnel as they relate to this POAQMP are presented in Table 2-10.

Table 2-10 Roles and responsibilities

Roles	Responsibilities
Asset Manager	- Accountable for the environmental performance, including air quality, of the MIP - Provides sufficient resources to implement, develop and maintain the POAQMP throughout the operating life of the MIP - Implement stop work procedures where they believe a work activity to be an actual or potential cause of pollution to the environment anywhere within the MIP - Reviews and approves changes to the POAQMP
Warehouse Managers IMEX / INTS Terminal Manager(s) Rail Link Estate Manager	- Communicates the requirements of the POAQMP and environmental obligations to operational team - Has the authority to stop work processes within the area of responsibility to prevent air quality non-conformances from occurring or continuing - Monitors operations against the requirements of the POAQMP and CoC and takes action to resolve issues where required - Where required, implements changes to activities to manage ongoing compliance - Reports incidents to Asset Manager in accordance with the OEMP
Site Health, Safety and Environment (HSE) Manager	- Reviews and implements this POAQMP - Monitors operations against this POAQMP through regular site inspections to evaluate compliance with the CoC - Has the authority to implement reasonable steps to avoid or minimise unintended or adverse air quality impacts, including to direct that relevant actions be ceased immediately should any adverse impacts be likely to occur - Reports air quality incidents to Warehouse Manager and Asset Manager where required, in accordance with the Incident reporting system outlined in the OEMP - Acts as the 24-hour EPA contact - Facilitates the inductions and training program for relevant persons involved with IMEX, Intermodal Terminal (IMT), Rail Link and Estate operations - Maintains the register of air quality incidents, potential; incidents and complaints and implements subsequent remedial action
Individual Tenants	- Responsible for their own environmental performance for operational activities on leased areas - Reports air quality incidents to Warehouse Manager and/or the Site HSE Manager/Advisor - Track their compliance with the relevant air quality requirements in the CoC and provides Environmental Compliance Reports to the Precinct Operator which detail their compliance status with the CoC relevant to the respective WOEMP for inclusion in Annual Compliance Reports as required.

3. Implementation

This section addresses the key air quality risks associated with operation of the MIP and the environmental controls established to manage key risks.

3.1. Existing Environment

The following sections summarise the known factors influencing air quality within and adjacent to the MIP. The key reference documents are:

- Section 8.2 of the MPE Stage 1 EIS
- Section 9.3 of the MPE Stage 2 EIS
- Section 17.2 of the MPW Concept and Stage 1 EIS
- Section 9 of the MPW Stage 2 EIS.

3.1.1. Meteorological Conditions

3.1.1.1. Prevailing Wind Conditions

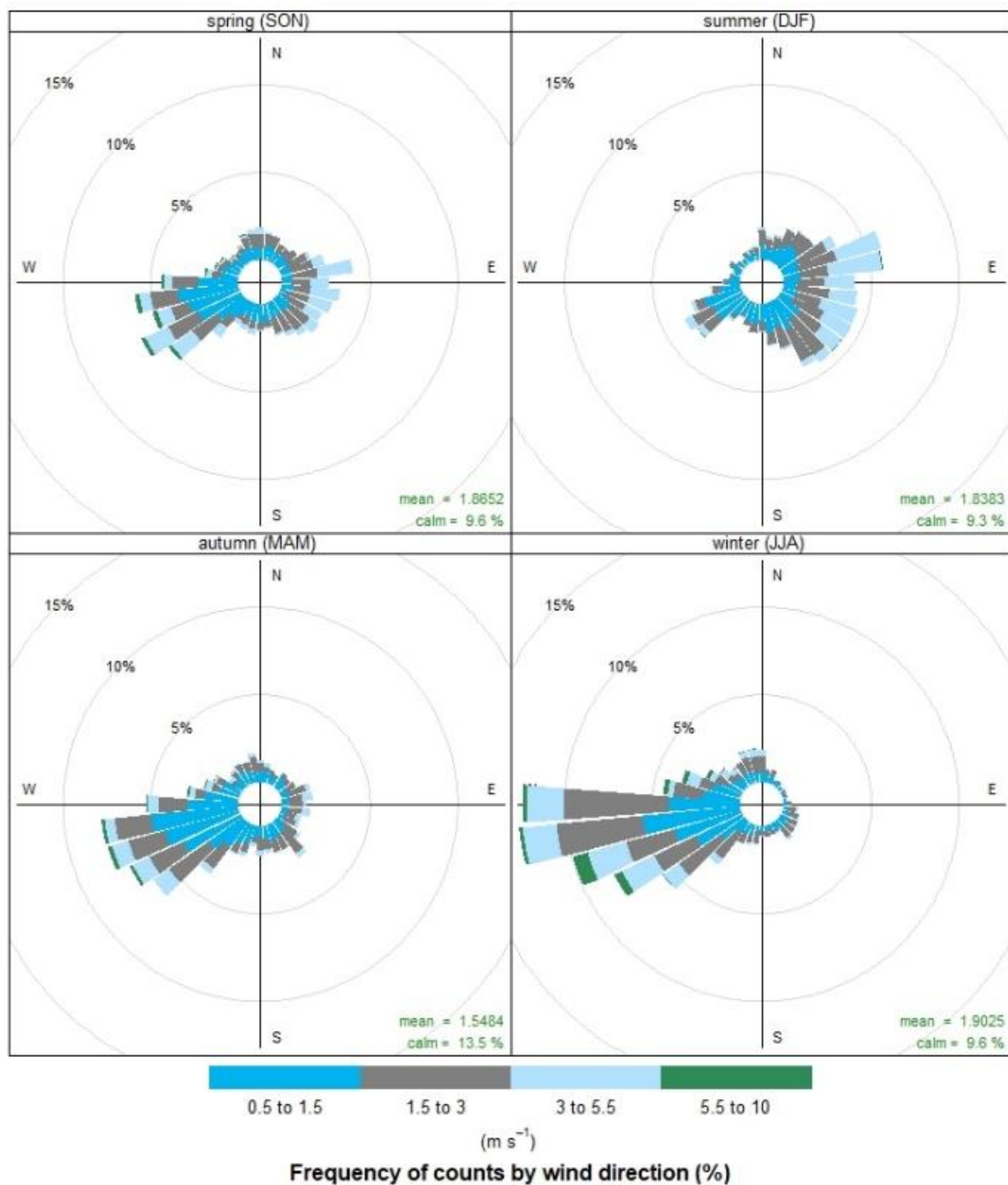
Figure 3-1 shows the seasonal wind rose of recorded wind speed and direction data from the DPHI Environment and Heritage (DPHI E&H) (formerly Office of Environment and Heritage (OEH)). Liverpool monitoring station (for the years 2014 to 2018), demonstrating the prevailing wind conditions in the area. Prevailing winds influence the dispersion of dust and other air emissions potentially generated by the Precinct.

The recorded wind pattern is dominated by south-west to westerly airflow during autumn and winter, switching to east to south-east flow during summer months. The highest wind speeds are most frequently experienced from the south-west direction.

Average recorded wind speeds are low (approximately 2m/s in all seasons), with the frequency of calm conditions (wind speeds less than 0.5m/s) ranging from 9.3% to 13.5% of the time.

The prevailing wind directions are shown in Figure 3-1.

Figure 3-1 Season wind rose - Liverpool 2014-2018



3.1.1.2. Ambient Temperature

Monthly mean minimum temperatures range between 5°C to 18°C, with monthly mean maximum temperatures of 17°C to 28°C. The highest temperatures are typically experienced during the summer months, while the lowest are generally experienced between May and September.

3.1.1.3. Rainfall

Precipitation has the potential to impact on dust generation and removal of atmospheric pollutants and is, therefore, an important factor in quantifying predicted air emissions. Historical data recorded at Bankstown Airport since 1968 indicates the region is characterised by moderate rainfall, with a mean annual rainfall of 870mm which falls over an average of 115 days.

The wettest month is usually February with an average of 106mm. The lowest monthly rainfall usually occurs in September with an average of 45mm.

3.1.2. Existing Ambient Air Quality

3.1.2.1. MPE

Air quality data from the DPHI E&H Liverpool monitoring station was analysed for the most recent five-year period (2014-2018)² for PM₁₀, PM_{2.5}, NO₂, CO, SO₂ and Total suspended particles (TSP). The dust deposition annual average was obtained from the monitoring data as presented in the MPW Concept and Stage 1 EIS where monitoring was conducted at three locations across the suburbs of Wattle Grove, Casula and Glenfield. Background dust deposition levels recorded range from 0.6 g/m²/month and 0.8 g/m²/month, expressed as an annual average (insoluble solids) as presented in Table 3-1.

Baseline air quality for particles (PM₁₀ and PM_{2.5}) can be described as fair to poor, while baseline air quality for NO₂, SO₂ and CO can be described as very good.

Background air quality concentrations for key pollutants for the MIP and surrounding areas are summarised in Table 3-1. The number of times the impact assessment criteria are exceeded for the same period is presented in Table 3-2.

Table 3-1 Adopted background air quality concentrations for the MPE³

Pollutant	Averaging Period	Adopted Background Value	Source
PM ₁₀	24-hour average ^a	31.0 µg/m ³	DPHI E&H Liverpool monitoring station (2014-2018)
	Annual average	20.5 µg/m ³	DPHI E&H Liverpool monitoring station (2014-2018)

² Data accessed using the following website: <https://www.environment.nsw.gov.au/aqms/search.htm>.

³ This data is more recent (2014-2018) than the background data used in the modelling for MPE Stage 2 EIS (2010-2014) and demonstrates that the background levels are still greater than the emissions from the Facility. It is noted that 2018 was an exceptionally high year for PM_{2.5} due to drier weather conditions.

Pollutant	Averaging Period	Adopted Background Value	Source
PM _{2.5}	24-hour average ^a	14.8 µg/m ³	DPHI E&H Liverpool monitoring station (2014-2018)
	Annual average	9.0 µg/m ³	DPHI E&H Liverpool monitoring station (2014-2018)
NO ₂	1-hour average ^a	63.9 µg/m ³	DPHI E&H Liverpool monitoring station (2014-2018)
	Annual average	21.1 µg/m ³	DPHI E&H Liverpool monitoring station (2014-2018)
CO	1-hour average	2.9 mg/m ³	DPHI E&H Liverpool monitoring station (2014-2018)
	8-hour average	2.5 mg/m ³	DPHI E&H Liverpool monitoring station (2014-2018)
SO ₂	1-hour average	52.4 µg/m ³	DPHI E&H Liverpool monitoring station (2014-2018)
	24-hour average	10.5 µg/m ³	DPHI E&H Liverpool monitoring station (2014-2018)
	Annual average	2.6 µg/m ³	DPHI E&H Liverpool monitoring station (2014-2018)
TSP	Annual average	51.2 µg/m ³	DPHI E&H Liverpool monitoring station (2014-2018)
Dust deposition	Annual average	1g/m ² /month ⁴	Monitoring data for MPW Concept and Stage 1 EIS

Note: ^a based on the 90th percentile of the daily average for 5 years of data

Table 3-2 Number of exceedances of the impact assessment criteria for Liverpool DPHI E&H site

Year	NO	CO	PM ₁₀	PM _{2.5}	SO ₂
	1-hr	8-hr	24-hr	24-hr	1-hr
2014	0	0	0	0	0
2015	0	0	1	2	0
2016	0	0	3	4	0
2017	0	0	2	3	0
2018	0	0	13	8	0

⁴ Background dust concentrations are sourced from ambient air quality monitors established on the Project site in 2012 and presented in Table 7-5 of the MPE Concept EIS.

3.1.2.2. MPW

Ambient air quality monitoring equipment was established at the MPW Site in July 2012. To quantify ambient air quality for the MPW Project, data recorded by onsite air quality monitoring equipment was supplemented with data from the NSW EPA ambient air quality monitoring stations at Liverpool and Chullora. The MPW Concept and Stage 1 EIS notes that recorded data for the Liverpool Station generally reflected a higher background concentration, and so was consequently adopted as the baseline dataset to account for emissions from neighbouring sources. Data from the MPW air quality program for deposited dust was adopted for the assessment (Table 3-3).

Table 3-3 Adopted background air quality concentrations for the MPW

Pollutant	Averaging Period	Adopted Background Value
PM ₁₀	24-hour average	Daily varying
	Annual average	19.4 µg/m ³
PM _{2.5}	24-hour average	Daily varying
	Annual average	8.2 µg/m ³
NO ₂	1-hour average	Hourly varying
	Annual average	20.4 µg/m ³
CO	1-hour average	5.0 mg/m ³
	8-hour average	30 mg/m ³
SO ₂	1-hour average	74.4 µg/m ³
	24-hour average	13.6 µg/m ³
	Annual average	2.6 µg/m ³
TSP	Annual average	48.4 µg/m ³
Dust deposition	Annual average	1 g/m ² /month ⁵

⁵ Background dust concentrations are sourced from ambient air quality monitors established on the Project site in 2012 and presented in Table 7-5 of the MPE Concept EIS.

The following key characteristics in relation to ambient air quality were made in the MPW Stage 2 EIS, on the basis of the Concept and Stage 1 ambient assessment:

- Background annual average NO₂, PM10 and PM2.5 emissions were derived by averaging out data over a five year period at the nearby Liverpool monitoring station between 2011 and 2015.
- For short term impacts, daily varying PM10 and PM2.5 concentrations and hourly varying concentrations for NO₂ are paired with modelling predictions for assessment of cumulative impacts.
- Background PM2.5 concentrations already exceed the NEPM AAQ reporting standard. Assessment of impacts will therefore be discussed in the context on the incremental increase generated by the Proposal.
- The adopted background values for the cumulative impact assessment relating to CO and SO₂ values is based on the maximum background concentration recorded over the five year period 2011 and 2015. This conservative approach is considered appropriate given the relatively low background concentrations recorded for these pollutants.
- The annual average TSP concentrations for the site are derived upon ratios established linking concentrations of TSP from PM10 (ratios for urban areas generally range from 0.4 to 0.5).
- Monitoring for dust deposition as part of the MPW Concept Approval was conducted at three locations across the suburbs of Wattle Grove, Casula and Glenfield. Background dust deposition levels recorded range from 0.6 g/m²/month and 0.8 g/m²/month, expressed as an annual average (insoluble solids).

3.1.3. Sensitive Receivers

Ramboll (2016) reviewed the residential and sensitive receiver areas within the vicinity of the Precinct. These sensitive receivers are located in the neighbouring suburbs of Wattle Grove, Moorebank, Casula and Glenfield and are shown in Figure 3-2.

Figure 3-2 Sensitive receivers and proposed real-time air quality monitors

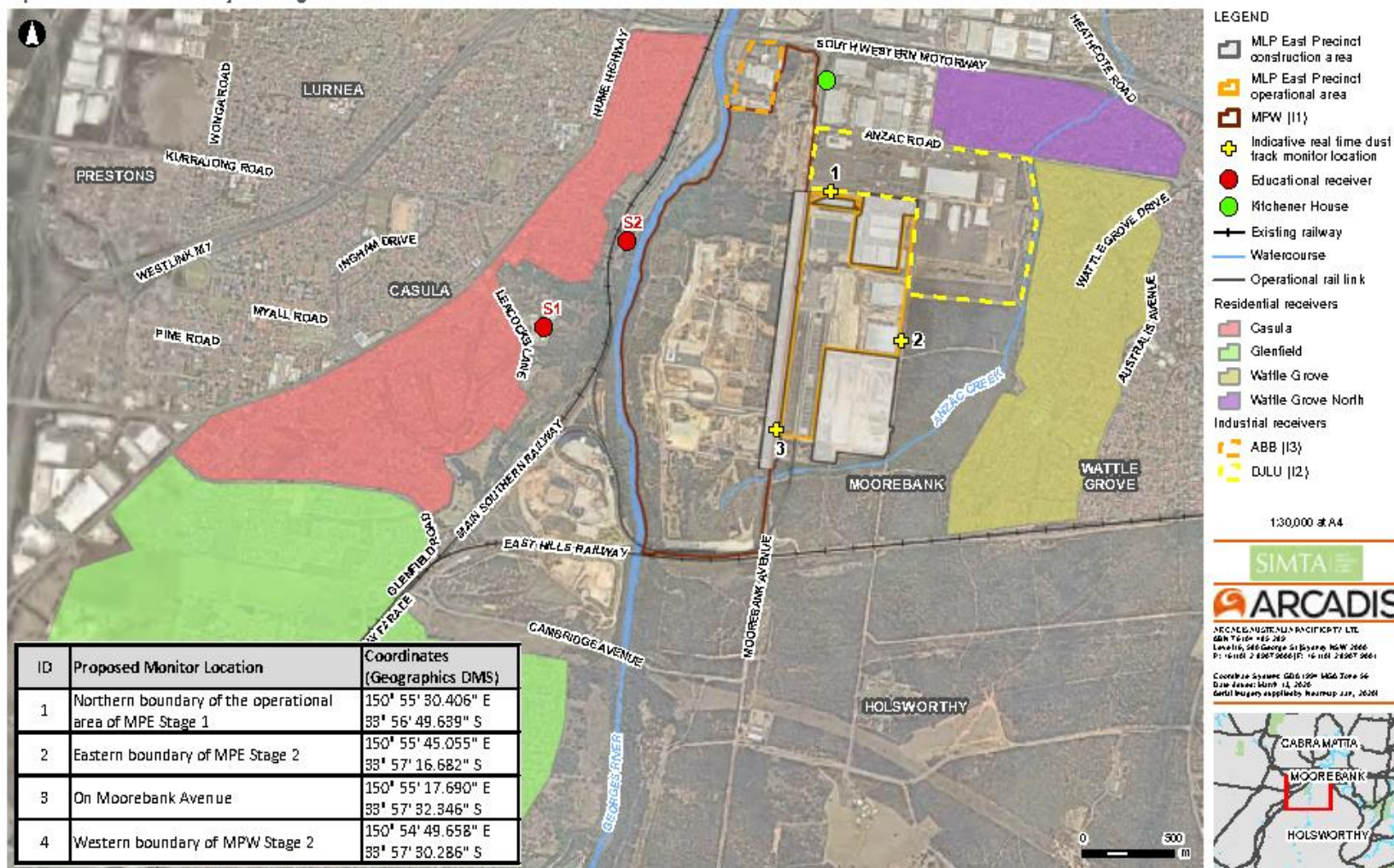


Figure 3-2: Sensitive receivers and proposed real-time air quality monitors

Date: 13/03/2025 Path: \\moorebank\projects\A002\B01\GIS\A_Consult\B_Maps\MPE3\MPE32_GLMPOAD\B01SIMTA_MPE32_GLMPOD\B01_SensitiveReceivers_A4L_v0.mxd

3.2. Aspects, Impacts and Risks

As outlined in Section 8.3.2 of the MPE Stage 1 EIS and Section 9.4.2 of the MPE Stage 2 EIS, diesel combustion in trucks, locomotives and container handling equipment will be the key source of emissions associated with the MPE. This is consistent with Section 9.2.1 of the MPW Stage 2 EIS which considered combustion of diesel fuel to be the key emission during operations.

This section details potential air quality impacts related to operational activities.

3.2.1. Operational Activities

The main operational activities associated with the generation of air emissions include:

- Light vehicles (LV) and heavy vehicles (HV) servicing the Precinct
- Truck transfers within the Precinct
- Diesel locomotives travelling along the Rail Link to and from the Precinct
- Diesel locomotives idling during train loading and unloading
- Container handling equipment
- Onsite plant and equipment
- Liquefied natural gas (LNG) forklifts operating within warehouse areas
- Warehouse cooling and heating (including gas fired boilers)
- Warehouse plant, equipment and vehicles.

3.2.2. Potential Operational Impacts

The MIP operational activities are not expected to generate significant amounts of nuisance dust. There may be minor ground disturbance activities associated with landscaping and the repair and maintenance of sealed areas/roads, however these activities are likely to be temporary and short term in nature.

Odour from the operational MIP is not considered likely, but some odour may result from the operations of the Glenfield Waste Facility located near the Rail Link. Odour from this site will be managed in accordance with the site's management plans.

Other pollutants arising from the above activities that are of greatest concern include the following:

- PM₁₀ and PM_{2.5}
- Oxides of nitrogen (NO_x)
- Sulphur Oxides (SO₂)
- Carbon monoxide
- Volatile organic compounds (VOCs) such as benzene, 1-3-butadiene and polycyclic aromatic hydrocarbons (PAHs).

A summary of the annual emissions associated with operational activities of the Precinct are provided in Table 3-4. Modelling was undertaken in accordance with the "Approved Methods," (NSW EPA, 2016).

Table 3-4 Summary of annual emissions for the MIP (tonnes/annum)

Source / Activity	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}	HC	VOC
MPE Stage 1 (Source: Section 8.3.2 of the MPE Stage 1 EIS) ⁶							
Trucks (travelling and idling)	3.5	7.0	0.001	0.2	0.2	-	0.5
Locomotives (idling and travelling to SSFL)	1.1	10.9	0.002	0.2	0.2	0.4	0.4
Container Handling Equipment	25.9	26.6	0.003	1.5	1.4	3.0	3.1
Total	30.5	44.5	0.006	1.9	1.8	3.4	4.0
MPE Stage 2 (Source: Section 9.4.2 of the MPE Stage 2 EIS) ⁷							
Warehouse traffic - HV	0.3	4.5		0.1	0.1	0.1	0.1
Warehouse traffic - LV	12.0	2.0		0.1	0.1	0.8	0.8
Terminal transfer to warehouse	0.1	0.4		0.0	0.0	0.0	0.0
Warehouse forklifts	13.7	3.1	0.4	0.2	0.2	5.5	5.8
Warehouse heating/cooling	5.5	6.6	0.0	0.5	0.5		0.4
Total	31.7	16.6	0.4	0.9	0.8	6.4	7.1
MPW Stage 2 (Source: Section 9.4.2 of the MPW Stage 2 EIS) ⁸							
Locomotives travelling, idling, shifting	6.0	60.3	0.01	1.1	1.1	2.4	2.5
Container handling	26.7	27.5	0.1	1.5	1.5	3.1	3.2
External truck movements	0.2	4.8	0	0.1	0.1	0.06	0.06
Employee vehicles	0.7	0.2	0	0.02	0.02	0.06	0.07
Warehousing – internal transfer heating/cooling, forklifts	14.3	7.2	0.3	0.5	0.5	4.1	4.6
Total	47.9	100.0	0.41	3.22	3.22	9.72	10.43

⁶ Annual emissions are based on the assumption (for a worst-case scenario modelling assessment) that six reach stackers would operate continuously for an entire year. The use of six reach stackers was employed within the original modelling assessment, however this number may be subject to change when operations begin in 2019.

⁷ Annual emissions are based on the assumption (for a worst-case scenario modelling assessment) that all 24 forklifts would operate at an average 50% load for an entire year.

⁸ Annual emissions are based on the assumption (for a worst-case scenario modelling assessment) that 12 reach stackers would operate at an average 50% load for an entire year.

Based on emissions factors and activity data assumptions, container handling equipment, trucks, locomotives and warehouse heating and cooling are the largest emissions sources. Section 4 outlines how emissions will be managed in accordance with the CoC and overarching MPE and MPW OEMP.

3.2.2.1. Dispersion Modelling

The AERMOD modelling system was used to estimate the dispersion of pollutants associated with the Precinct. The cumulative operational scenario included the cumulative operation of the MPE and MPW, incorporating a total of 750,000 twenty-foot equivalent unit (TEU) (250,000 TEU and 500,000 TEU respectively) and 515,000m² Gross floor area (GFA) of warehousing (215,000m² and 300,000m²). This was used to predict the concentration of the emissions at various sensitive receivers.

The predicted cumulative (MPE stage 1, MPE Stage 2 and background) maximum pollutant concentrations (receiver maximum) are presented in Table 3-5. The Receiver Maximum PM_{2.5} concentrations were determined by adding the highest modelled prediction across all receptors to the background concentrations as presented in the MPE Stage 2 EIS (i.e. 5-year average of 2010-2014).

As discussed in Section 3.1.2 and shown in Table 3-5, adopted annual background PM_{2.5} concentrations are already in exceedance of the criteria and are not significantly increased as a result of the incremental cumulative emissions generated by the Precinct.

Table 3-5 Summary of cumulative pollutant modelling predictions at most affected sensitive receivers⁹

Pollutant	Period	Background Concentrations	Air quality goal criteria	Receiver maximum
PM ₁₀ (ug/m ³)	24 hour maximum	Daily varying	50 ug/m ³	48.5 ug/m ³
	Annual average	19.4 ug/m ³	30 ug/m ³	20.0 ug/m ³
PM _{2.5} (ug/m ³)	24 hour maximum	Daily varying	25 ug/m ³	24.4 ug/m ³
	Annual average	8.2 ug/m ³	8 ug/m ³	8.8 ug/m ³
NO ₂ (ug/m ³)	1 hour maximum	63.9 ug/m ³	246 ug/m ³	187.7 ug/m ³
	Annual average	20.4 ug/m ³	62 ug/m ³	37.4 ug/m ³
CO (mg/m ³)	1 hour maximum	5.0 mg/m ³	30 mg/m ³	5.1 mg/m ³
	8 hour maximum	3.1 mg/m ³	10 mg/m ³	3.1 mg/m ³

⁹ Background concentrations and cumulative pollutant modelling predictions are sourced from Table 19-10 of Section 19.4.3 of the MPE Stage 2 EIS and are based on a 2010-2014 5-year annual average.

Pollutant	Period	Background Concentrations	Air quality goal criteria	Receiver maximum
SO ₂ (µg/m ³)	1 hour maximum	74.4 µg/m ³	570 µg/m ³	75.4 µg/m ³
	24 hour maximum	13.6 µg/m ³	228 µg/m ³	13.8 µg/m ³
	Annual average	2.6 µg/m ³	60 µg/m ³	2.7 µg/m ³

The maximum predicted incremental concentrations of 1,3-butadiene, benzene and PAHs (expressed as 99.9th percentiles) for the MPE are presented in Table 3-6 and for MPW in Table 3-7. These VOCs were modelled during the EIS (refer to MPE Stage 2 Appendix M and MPW Stage 2 Appendix O) and impact assessment criteria were applied at and beyond the site boundary in accordance with the “Approved Methods.” The highest predicted modelled concentration (the Receiver Maximum) of VOCs across the modelled area were used as a worst-case scenario to determine compliance.

The results identify that all VOCs are below the relevant assessment criteria.

Table 3-6 Assessment of VOC concentrations for MPE¹⁰

Pollutant	Air quality goal criteria	Predicted concentration (µg/m ³)			
		Receiver Maximum		Grid maximum	
		MPE S1	MPE S2	MPE S1	MPE S2
1,3 Butadiene	40 µg/m ³	0.01	0.06	0.2	0.32
Benzene	29 µg/m ³	0.07	0.17	1.1	0.88
PAH (as BaP)	0.4 µg/m ³	0.02	0.01	0.2	0.07

Table 3-7 Assessment of VOC concentrations for MPW¹¹

Pollutant	Air quality goal criteria	Predicted concentration (µg/m ³)	
		Receiver Maximum	Grid maximum
1,3 Butadiene	40 µg/m ³	0.06	0.35
Benzene	29 µg/m ³	0.2	1.3
PAH (as BaP)	0.4 µg/m ³	0.01	0.09

¹⁰ Assessment of VOC concentrations are sourced from Table 8-17 of Section 8.3.2 of the MPE Stage 1 EIS and Table 9-18 of Section 9.4.2 of the MPE Stage 2 EIS.

¹¹ Assessment of VOC concentrations are sourced from Table 9-27 of Section 9.4.3 of the MPW Stage 2 EIS.

In summary, the modelling predictions for all air pollutants indicate that the risk of adverse air quality impacts generated by the Precinct are low. Incremental increases in key pollutants at surrounding residential receivers would be largely indistinguishable from the adopted background conditions and would comply with all relevant assessment criteria.

3.3. Management Measures

This section describes the overall approach to managing and mitigating risks to air quality during the operation of the Precinct.

Management measures are summarised in Table 3-8. These measures are based on best practice and compliance requirements, detailed in sections 2.2 and 2.3.

Responsibility for the management of emissions associated with warehousing, including forklifts and gas heating/cooling will fall with each tenant.

Table 3-8 Management measures

ID	Management Measure	Timing	Responsibility	Reference
GENERAL – Measures for minimising exhaust fumes				
AQ1	An anti-idle policy will be developed, and training will be provided to locomotive drivers and truck operators to maximise fuel efficiency and minimise unnecessary idling.	During operations	Site HSE Manager	MPE EPBC Act Approval Annexure A MPW EPBC Act Approval SSD 6766 FCMM 2B SSD 7628 FCMM 3B SSD 6766 FCMM 4.1B SSD 7709 FCMM 3C SSD 7709 FCMM 3F
AQ2	Signs will be installed within the IMT to remind drivers of the anti-idle policy and their obligations.	Prior to commencement of operations	Asset Manager	MPW EPBC Act Approval SSD 6766 FCMM 2B SSD 7628 FCMM 3B SSD 6766 FCMM 4.1B SSD 7709 FCMM 3C SSD 7709 FCMM 3F
AQ3	Maintenance plans will be developed and implemented that include a requirement to consider air emissions and where possible improve air emission performance at next overhaul/upgrade. For example, if an emissions upgrade kit is compatible for a particular model locomotive, this will be considered at overall/upgrade if that locomotive is under operational control of the MPE.	During operations	Asset Manager	SSD 6766 FCMM 4.1B SSD 7709 FCMM 3C SSD 7709 FCMM 3F

ID	Management Measure	Timing	Responsibility	Reference
AQ4	A complaints line will be available for the community to report excessive idling and smoky vehicles associated with the facility.	During operations	Asset Manager	SSD 6766 FCMM 2B SSD 7628 FCMM 3B SSD 7709 FCMM 3F
DIESEL EXHAUST – measures for minimising emissions of VOC, SO ₂ , PAHs, particulate matter, NO ₂ and CO				
AQ5	Fuel efficiency of the operation plant/equipment will be assessed prior to selection, and where practical, equipment with the highest fuel efficiency and which uses lower GHG intensive fuel (e.g. biodiesel) will be used during operation. For example, some equipment may not be compatible with using lower GHG intensive fuel (LPG, biodiesel or biodiesel blends). Furthermore, the use of lower GHG intensive fuel may not be practical if the GHG benefit is offset by an increase in emissions of air pollutants (such as NO _x or PM _{2.5}).	Prior to the commencement of operations	Asset Manager	MPW EPBC Act Approval SSD 7628 FCMM 11G SSD 7709 FCMM 3G
AQ6	All registered vehicles visiting and operated within the Facility will be regulated under the Australian Design Rules and the Fuel Quality Standards Act (2000).	During operations	Site HSE Manager	SSD 7628 CoC A32 a) SSD 7628 CoC A32 b) SSD 7628 CoC B59 b) SSD 7628 CoC B61 Appendix M of MPE Stage 2 EIS SSD 7709 B188 SSD 7709 B47A

ID	Management Measure	Timing	Responsibility	Reference
AQ7	All vehicles, equipment and locomotives will be maintained in accordance with the manufacturer's specifications.	During operations	Site HSE Manager	MPW EPBC Act Approval SSD 7628 CoC A32 a) SSD 7628 CoC B59 b) SSD 7628 CoC B61 SSD 7709 FCMM 3C SSD 7709 CoC B188 SSD 7709 CoC B47A
AQ8	Equipment with smoky exhausts (visible black smoke emitted for a continuous period of more than 10 seconds) shall be stood down for maintenance.	During operations	Site HSE Manager	MPW EPBC Act Approval SSD 7628 CoC A32 a) SSD 6766 FCMM 2B SSD 6766 FCMM 4.1B SSD 7709 FCMM 3C SSD 7709 FCMM 3F
AQ9	Trucks with smoky exhausts (visible black smoke emitted for a continuous period of more than 10 seconds) shall be excluded from the Facility.	During operations	Site HSE Manager	MPW EPBC Act Approval SSD 7628 CoC A32 a) SSD 6766 FCMM 2B SSD 7628 FCMM 3B SSD 6766 FCMM 4.1B SSD 7709 FCMM 3F SSD 7709 CoC B188

ID	Management Measure	Timing	Responsibility	Reference
AQ10	Unnecessary idling for vehicles or locomotives will be avoided with engines turned off during periods of inactivity.	During operations	Site HSE Manager	EPBC Act Approval Annexure A MPW EPBC Act Approval SSD 7628 CoC A32 b) SSD 7628 CoC B61 SSD 6766 FCMM 2B SSD 6766 FCMM 4.1B SSD 7628 FCMM 3B SSD 7709 FCMM 3C SSD 7709 FCMM 3F
AQ11	An electrified locomotive shifter will be installed to reduce the need for excessive locomotive idling.	Commencement of operations	Site HSE Manager	SSD 7628 CoC B61 SSD 6766 FCMM 2B SSD 6766 FCMM 4.1A SSD 7709 CoC B132
AQ12	Electric gantry cranes will be installed to reduce use of diesel-powered equipment.	Within seven years of commencement of operation or on the Facility achieving an annual throughput of 250,000 TEU (whichever is sooner)	Site HSE Manager	SSD 7628 CoC B61 SSD 6766 FCMM 4.1A SSD 7709 CoC B132 SSD 7709 FCMM 3C
AQ13	Trips and trip distances will be controlled and reduced for example by the efficient management of deliveries and dispatches.	During operations	Site HSE Manager	MPE EPBC Act Approval Annexure A MPW EPBC Act Approval SSD 7628 CoC A32 b) SSD 7709 CoC B188

ID	Management Measure	Timing	Responsibility	Reference
AQ14	Loading and unloading will be coordinated to minimise truck trip distances as they travel through the Facility.	During operations	Site HSE Manager	SSD 7628 CoC A32 b) SSD 6766 FCMM 4.1B SSD 7709 FCMM 3C SSD 7709 CoC B188
AQ15	A vehicle booking system, truck marshalling lanes and rejection of trucks that arrive early will be implemented to minimise wait times and queuing.	Commencement of operations	Site HSE Manager	MPE EPBC Act Approval Annexure A SSD 7628 CoC A32 b) SSD 6766 FCMM 2B SSD 6766 FCMM 4.1A SSD 7709 FCMM 3C SSD 7709 CoC B47A
DUST – visible dust from landscaping and maintenance practices				
AQ16	Working practices will be modified to prevent dust emissions when nuisance dust is seen leaving the Facility, in accordance with best practice management measures described in the CAQMP.	Visible dust pollution	Site HSE Manager	MPW EPBC Act Approval SSD 7628 CoC B54 SSD 7628 CoC B55 SSD 6766 CoC E14 SSD 5066 CoC B11 SSD 7709 CoC B46
ODOUR EMISSIONS – associated with refuelling				
AQ17	Refuelling of equipment will be sited as far from sensitive receivers as practical and limited to low volatility fuels (i.e. diesel) to prevent odour impacts.	During operations	Site HSE Manager	MPW EPBC Act Approval SSD 7628 CoC B60 SSD 7709 CoC B47

ID	Management Measure	Timing	Responsibility	Reference
EQUIPMENT FUELS – measures for minimising emissions of VOC, SO ₂ , PAHs, particulate matter				
AQ18	Where feasible, electricity powered container handling equipment will be used instead of diesel equipment. Feasibility relates to technical and logistical considerations. For example, whether specific electric container handling equipment is compatible with the operational logistics for the MPE or whether electric technology options are available for specific types of equipment.	Commencement of operations	Site HSE Manager	MPW EPBC Act Approval MPE EPBC Act Approval Annexure A SSD 7628 CoC B61 SSD 7709 CoC B132 SSD 7709 FCMM 3C
AQ19	All container handling equipment, purchased after 2019, will meet US EPA Tier 4 or EU Stage IV emission standard or achieve an equivalent emission control performance to those standards.	Commencement of operations	Site HSE Manager	MPW EPBC Act Approval SSD 6766 CoC G12 SSD 7628 CoC B61 SSD 7709 FCMM 3C
AQ20	New reach stackers will meet US EPA Tier 4 or EU Stage IV emission standards.	During operations	Site HSE Manager	MPW EPBC Act Approval SSD 6766 CoC G12 SSD 7628 CoC B61 SSD 6766 FCMM 4.1A SSD 7709 FCMM 3C
AQ21	Where feasible, tenants will be encouraged to use LNG powered forklifts instead of diesel vehicles. Feasibility relates to technical and logistical considerations. For example, whether LNG powered forklifts are compatible with the operational logistics for individual tenants.	Commencement of operations	Individual tenants	MPE EPBC Act Approval Annexure A SSD 7628 CoC B61 SSD 7709 FCMM 3C

ID	Management Measure	Timing	Responsibility	Reference
AQ22	All rolling stock servicing the Facility will be upgraded to comply with best practice within 7 years of operation of the IMEX terminal (See Section 4.1.3).	During operations	Site HSE Manager	MPE EPBC Act Approval Annexure A SSD 7628 CoC B61 SSD 7709 FCMM 3C
AQ23	Where feasible, warehouse heating and cooling equipment will be run using electricity generated from solar arrays installed on warehouse roofs. Feasibility relates to technical and logistical considerations. For example, depending on the overall power demand for individual tenants, and when this demand is highest (day/night), solar power may not be technically feasible.	During operations	Individual tenants	MPW EPBC Act Approval SSD 7628 CoC B61 SSD 7628 FCMM 11G SSD 7709 CoC B49

4. Monitoring and Review

4.1. Monitoring Requirements

MPE

In accordance with FCMM 2C of the MPE Stage 1 Consent (SSD6766), an air quality monitoring program will be established for the initial phase of operation, focused on the key pollutants PM₁₀ and NO₂. In accordance with FCMM 3C of the MPE Stage 2 Consent (SSD7628) and condition 8 (f) of the EPBC Act approval, real-time boundary monitoring will be installed to measure PM₁₀, PM_{2.5}, NO₂ and CO emissions throughout Operation. As required under condition 8 (f) of the EPBC Act approval, the monitoring program will be used to validate the anticipated impacts presented in the air quality assessment and determine the effectiveness of mitigation measures. In addition, daily visual inspections will ensure appropriate operational response to minimise environmental impact in the event of an incident or non-compliance.

MPW

Condition 10 of the EPBC Act approval for MPW requires compliance with the management measures approved as part of the Final MPW Stage 2 EIS (Supplementary RtS, December 2015). These measures include provisions to monitor air quality and emissions as part of the operational phase of the MPW development.

Condition B47A of the MPW Stage 2 consent (SSD 7709) requires preparation and implementation of a Precinct Operational AQMP, which includes monitoring for each emission source associated with site operations. Additionally, CoC B46 requires monitoring of dust emissions and CoC B47 requires odour emissions monitoring and management. FCMM 3C and 3G require locomotive emissions monitoring to demonstrate compliance with listed best practice guidelines and standards.

4.1.1. Visual Inspection

Visual inspections will be undertaken by the respective Asset Manager/Terminal Manager to monitor compliance with the MPE and MPW consents, and this POAQMP, as it relates to dust and emissions monitoring and management. Records will be maintained as evidence of inspections.

Daily inspections will focus on the following key issues:

- Excessive truck and locomotive idling
- Generation of exhaust fumes (smoky exhausts for periods exceeding 10 seconds)
- Nuisance dust visibly leaving site
- Emission of offensive odours.

A summary of the reactive measures and corrective actions in response to non-compliance during visual inspections are summarised in Table 4-1.

Table 4-1 Reactive management measures and corrective action in response to visual inspection

Emissions source	Management measure or control	Corrective actions
Excessive idling	Ensure container equipment engines are turned off during periods of inactivity.	Remind equipment operators of anti-idle policy through toolbox talks
	Respond to excessive truck queuing by rejecting vehicles that arrive outside of allocated time slots and/or reallocation of deliveries and dispatch.	Review of vehicle booking system and truck lane management. Communicate action back to truck or freight operator.
	Ensure locomotive engines are turned off during periods of loading and unloading.	Remind locomotives operators of anti-idle policy and communicate non-compliance back to rolling stock operator.
Excessive/prolonged generation of exhaust fumes	On-site equipment with smoky exhausts (visible black smoke emitted for a continuous period of 10 seconds) shall be stood down for maintenance.	Install/utilise replacement equipment for essential tasks. For non-essential tasks, on-site equipment will be serviced in accordance with the maintenance plan and manufacturer's specifications and only returned to site when the issue has been resolved.
		Review maintenance procedures and frequency.
		Trucks with smoky exhausts shall be excluded from the Facility. Communicate action back to truck or freight operator.
Nuisance dust	Minimise disturbances that may create dust.	Remind operational staff of obligations to minimise air quality impacts.
	If dust is generated, stop activity or use dust suppression (eg water).	

The Key Performance Indicators or targets for operational air quality management at the site will be zero community complaints, monitored through the community complaints line, and compliance for the ambient air monitoring outlined in Table 4-2. Management of air quality community complaints is discussed further in Section 4.6.

4.1.2. Air Quality Monitoring

Ambient air monitoring requirements relevant to the POAQMP are summarised in Table 4-2. Locations of sensitive receivers and proposed monitoring sites are shown in Figure 3-2. Air quality monitoring results will be reported on a monthly basis and used to validate the predicted impacts and measure the effectiveness of the air quality management measures, presented in Section 3.2 and Table 3-8, respectively.

Records of all monitoring will be managed in accordance with Section 6.5 of the MPE OEMP (PREC-QPMS-EN-PLN-0001) and Section 6.5 of the MPW Stage 2 OEMP.

As detailed in Section 4.4, should an exceedance of the monitoring criteria and trigger values presented in Table 4-2 Ambient air monitoring requirements be recorded, an investigation will be undertaken to identify the likely source of the exceedances. If the exceedance is attributed to emission sources at the MIP, a review of the management measures detailed in Table 3-8 and implementation of further corrective actions will be undertaken as appropriate to prevent further exceedance of the monitoring criteria and trigger values.

Table 4-2 Ambient air monitoring requirements

Monitoring Focus	Averaging period	Criteria / Trigger	Monitoring method	Monitoring locations	Frequency
PM ₁₀	24 hour average	50 µg/m ³	Continuous real-time monitors	One upwind and one downwind location representative of the closest sensitive receptor. Note, the site boundary is representative of the closest receptor in some cases (adjacent commercial premises). If required, monitors can be moved to areas along the boundary which are best suited to measuring impacts from significant emission generating operations at the time.	Continuous for the duration of operations
	Annual average	25 µg/m ³			
PM _{2.5}	24 hour average	25 µg/m ³	Continuous real-time monitors		
	Annual average	8 µg/m ³			
NO ₂ (µg/m ³)	1 hour average	246 µg/m ³	Continuous real-time monitors		
	Annual average	62 µg/m ³			
CO	1 hour average	30 mg/m ³	Continuous real-time monitors		
	8 hour average	10 mg/m ³			
Dust deposition	Annual average	4g/m ² /month	Dust deposition gauges	Refer to Figure 3-2	For the duration of concurrent construction activities.

4.1.3. Locomotive emissions

4.1.3.1. MIP IMEX and Interstate Terminal (INTS) terminals

The MIP is required to be operated as non-discriminatory access terminals, meaning the IMEX and INTS terminal can be accessed by any rail operator within the existing fleet of port shuttle locomotives used by the industry. On this basis, while the Terminal Manager cannot directly control the technology used by the existing fleet, they can influence it through imposition of minimum performance expectations for air emissions for port shuttle locomotives that enter the terminals.

Following consultation with the EPA and TfNSW and based on an understanding of industry best practice, the following benchmarks will be implemented for the terminal.

Table 4-3 Locomotive emission benchmarks

Locomotive Type	Standard	Period Improvements	Ultimate Outcome
Existing locomotives	Operate with diesel particulate emissions of < 0.30 g/kWh (grams per kilowatt hour)	Any overhauls of existing locomotives after the commencement of operations of the IMEX terminal would need to comply.	All existing locomotives to comply within 7 years of operation of the IMEX terminal
New locomotives	Operate with diesel particulate emissions of < 0.27 g/kWh and NOx emissions of < 7.37 g/kWh	Any new locomotives ordered after the commencement of operations of the IMEX terminal would need to comply.	N/A
New locomotives	Operated with diesel particulate emissions of < 0.13 g/kWh and NOx emissions of < 7.37 g/kWh	Any new locomotives ordered after 5 years of the commencement of operations of the IMEX terminal would need to comply.	N/A

The above measures would be adopted until such time as an industry standard or guideline has been established, at which time the relevant standard or guideline including associated timeframes would apply.

4.1.4. Summary of Operational Air Quality Monitoring

Details of the operational air quality monitoring to be undertaken are outlined in Table 4-4.

Table 4-4 Summary of air quality monitoring

Criteria	Description
Location References	Refer to Figure 3-2
Types and numbers of Monitors	4 x Dust deposition gauges (PMs) 4 x continuous real-time PM ₁₀ and PM _{2.5} monitors (DustTrak or similar) 4 x continuous real-time CO and NO ₂ monitors (Cairpol microsensor or similar)
Responsibility	Site HSE Manager
Frequency of Measurements	Monthly (dust deposition) for the duration of concurrent construction activities Continuous (PM ₁₀ , PM _{2.5} , NO ₂ and CO)
Criteria	See Table 4-2 for ambient air quality goals
Guidelines / Legislative Requirements	<i>Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales</i> <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i>
Monitoring of Effectiveness of Controls	Monthly review of monitoring data and analysis of effectiveness of controls Visual inspections of dust and vehicle exhausts Continuous air quality monitoring and alerts for exceedances of trigger values.
Reporting of Monitoring	See Table 4-5 for air quality reporting requirements

4.2. Environmental Auditing

The auditing of compliance against this POAQMP will be undertaken in accordance with the applicable management systems, and CoC as outlined within the overarching MPE OEMP (PREC-QPMS-EN-PLN-0001) and MPW OEMP.

4.3. Reporting

Reporting requirements for monitoring and auditing, as required in the CoC, will be undertaken in accordance with the overarching MPE OEMP (PREC-QPMS-EN-PLN-0001) and MPW OEMP.

Reporting requirements applicable to this POAQMP are summarised in Table 4-5.

Table 4-5 MPE reporting requirements

Requirement	Area/Location	Responsibility	Frequency	Submitted to
Air quality monitoring reporting	MIP	ESR	Annually (part of the Annual review)	DPHI/NEPA
Air quality monitoring reporting	MIP	ESR	Internal monthly reporting	Site HSE Manager
Annual Review	MPE	ESR	Annually	DPHI/NEPA
Compliance reporting	MIP	ESR	Pre-operation Annually Six-monthly	DPHI/NEPA Compliance
Compliance reporting	Warehouses	Individual Tenants	Six-monthly	Site HSE Manager
Best Practice Progress Review for emission technologies for locomotives	Rail Link and terminals (IMEX and INTS)	ESR/Qube	Pre-operation Annually for up to 7 years from commencement of operation	DPHI/NEPA

4.4. Review and Improvement

This POAQMP will be reviewed and improved in accordance with the MPE and MPW CoC, Section 6.2.1 of the MPE OEMP (PREC-QPMS-EN-PLN-0001) and Section 6.2.1 of the MPW OEMP. Continuous improvement will be achieved by the ongoing evaluation of environmental management performance and effectiveness of this plan against environmental policies, objectives, targets and review of monitoring results against Precinct air quality criteria and triggers. This includes the provision of additional mitigation measures.

Should the results of monitoring detailed in Section 4.1 identify an exceedance of air quality criteria, further investigation will be undertaken to ascertain if the exceedance is attributable to the Precinct and if so to identify the cause of the exceedance. Corrective actions to be implemented will depend on the identified cause of the exceedances. Contingency measures include:

- Review of training procedures and review of communication of anti-idling policy if idling trucks and/or locomotives are identified as the cause of the exceedances.
- Standing down plant or equipment for repair if plant or equipment exhausts are identified as the cause of the exceedance.
- Requiring specific locomotives to demonstrate that the minimum performance expectations for port shuttle locomotives are achieved.

Where monitoring data demonstrates ongoing compliance with the criteria in Table 4-2 and where no exceedances of the criteria are attributable to the Precinct, monitoring for

individual pollutants identified in Table 4-2 may be discontinued in consultation with all relevant stakeholders, and subject to approval of revised POAQMP by the Federal Minister (or delegate).

A copy of the revised and re-approved POAQMP and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure, as outlined in Section 1.5.3 of the OEMP.

4.5. Incidents

All air quality incidents will be reported and managed in accordance with LOGOS Incident Reporting and Management Procedure (WHSMS-LOGOS-007).

Incidents will be classified based on the incident's severity as shown in Section 4.6 of the MPE OEMP (PREC-QPMS-EN-PLN-0001) and Section 4.6 of the MPW OEMP – as applicable

All incidents will be managed and reported according to Section 4.6 of the MPE OEMP and Section 4.6 of the MPW OEMP – as applicable.

4.6. Complaints

As per:

- MPE Stage 1 CoC F4
- MPE Stage 2 CoC B59
- MPW Stage 2 CoC B47A and C6.

Complaints relating to air quality will be handled in accordance with Section 4.5.1 of the MPE OEMP, Section 4.5.1 of the MPW OEMP and the applicable Community Communication Strategy.

4.7. Non- Compliance, Non-Conformances and Corrective Actions

All air quality related non-compliances, non-conformances and resulting corrective actions will be managed in accordance with Section 6.4 of the MPE OEMP and Section 6.4 of the MPW OEMP (as applicable).

Appendix A Evidence of Consultation (MPE Only)

Subject:

FW: Documentation Review - EPA comments

From: [REDACTED] Craig.Flemming@epa.nsw.gov.au

Sent: Monday, 29 April 2019 3:48 PM

To: [REDACTED] irwin@tacticalgroup.com.au

Cc: [REDACTED] fchen@tacticalgroup.com.au [REDACTED] lawad@tacticalgroup.com.au

Subject: RE: Documentation Review

Hi [REDACTED],

As you are aware, The EPA routinely declines to comment on Management Plans and other post approval documentation.

I understand there are numerous such documents required by the various consents for the Moorebank Precincts.

I suggest that you send a comprehensive list of all the documents that require consultation with the EPA. The EPA will then identify which, if any, the EPA will review.

This way you can quickly satisfy the need to consult with the EPA without the need for redundant correspondence reiterating the EPA's position one by one for each document.

Please note that at this stage there is no role for the EPA in your project during the operating stage and therefore any operational related plans are not going to be of interest to the EPA. You should consider, regardless of the consent conditions, whether it would be appropriate to consult with the appropriate regulatory authority under POEO Act for operational matters.

If, in future, there is a need for an operational licence under POEO, the relevant documentation may be required for the licence application.

Regards,

Craig Flemming

Unit Head, Sydney Industry Section

Metropolitan Branch, NSW Environment Protection Authority

[REDACTED] [REDACTED]

craig.flemming@epa.nsw.gov.au www.epa.nsw.gov.au [@EPA_NSW](https://twitter.com/EPA_NSW)

Report pollution and environmental incidents 131 555 (NSW only)
or +61 2 9995 5555



From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: FW: Operational Air Quality Management Plan Moorebank Logistics Park- East Precinct
Date: Thursday, 16 May 2019 4:24:21 PM

Hi [REDACTED]

Please see below Liverpool Council's response on the above.

Could you please have a look and I'll give you a call tomorrow to discuss.

Thanks,
[REDACTED]

Regards,
[REDACTED]

ENVIRONMENTAL MANAGER
TACTICAL
GROUP

LEVEL 15 | 124 WALKER STREET | NORTH SYDNEY | NSW | 2060

T [REDACTED]
M [REDACTED]
E [REDACTED]
W www.tacticalgroup.com.au



Before printing this document, please consider the environment.

From: [REDACTED]
Sent: Thursday, 16 May 2019 4:01 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: FW: Operational Air Quality Management Plan Moorebank Logistics Park- East Precinct

Hi [REDACTED],

In regards to the submitted Operational Air Quality Management Plan, please see Council's comments below.

- It is unclear who the actual authors are associated with an environmental consultancy regarding the Operational Air Quality Management Plan Moorebank Logistics Park- East Precinct (Report No. PREC-QPMS-EN-PLN-0012, Revision 002) prepared by Madeleine Watson-Reeves and Ronan Kellaghan dated 1st April 2019.
- The NSW EPA confirmed that they did not wish to comment on any of the Operational Management Plans for the Intermodal as a licence is not required for Schedule 1 activities under the *Protection of the Environment Operations (POEO) Act 1997*.

According to Schedule 1 of the *POEO Act 1997*, 'railway systems activities' means "the installation, on site repair, onsite maintenance or onsite upgrading of track, including the construction or significant alteration of any ancillary works or the operation of rolling stock on track". However, 'railway systems activities' does not include the loading of freight into or onto and unloading of freight from, rolling stock or an activity at a freight depot or centre.

- Section 6 of the *POEO Act 1997* stipulates that a local authority is the **Appropriate Regulatory Authority (ARA)** for non-scheduled activities within its area except for a matter for which a public authority (other than the local authority) is declared under subsection (3) to be the ARA. In these circumstances, a public authority is the ARA for a matter for which it is declared to be the ARA by the Regulations.

The proposed SIMTA Intermodal Terminal Facility represents a large-scale operation and Liverpool City Council is not equipped or resourced to regulate the facility which is proposed to operate 24 hours a day, 7 days a week. **Therefore, it is our view that the NSW EPA shall be declared, under section 6 (3) of the POEO Act 1997, the ARA for all non-scheduled activities associated with the SIMTA Intermodal Terminal Facility.**

- Based upon the submitted information, it is understood that an Environmental Representative would be appointed by the proponent to immediately respond to any future pollution incidents, complaints and

concerns. Although self-regulation is important, an appropriately skilled and resourced Regulatory Authority is required to control site activities. It is our understanding that the NSW EPA would be the ARA for the operation of rolling stock on track. **Therefore, it was expected that the NSW EPA would have an interest in reviewing and commenting on the Operational Management Plans for the development.**

- If the NSW EPA is reluctant to provide feedback in relation to the Operational Management Plans and regulate non-scheduled construction and operational activities at the facility. Potential risks to the environment and public health are likely to eventuate given the Government's perseverance in appointing Council as the ARA. It is envisaged that the Department of Planning and Environment will have primary responsibility for assessing compliance with the approval during the construction and operational phases of the project. **According to the NSW Planning and Environment website, the Department of Planning and Environment's compliance team monitors and enforces the conditions of projects granted by the Minister for Planning or their delegate.**

Our belief is that the Department of Planning and Environment is equipped with the appropriate skills, knowledge and enforcement powers to regulate the proposed development during construction and operation. A united regulatory response between the Department and NSW EPA would alleviate Council's role in regulating non-scheduled activities at the site.

Operational Air Quality Management Plan Moorebank Logistics Park- East Precinct

- The OAQMP references 'Australian / New Zealand Standard AS/NZS 3580.1.1:2007 (Methods for Sampling and Analysis of Ambient Air, Part 1.1 Guide to Siting Air Monitoring Equipment)'. **This Standard was superseded by AS/NZS 3580.1.1:2016** Methods for sampling and analysis of ambient air - Part 1.1: Guide to siting air monitoring equipment.
- The Minister's CoC required the Applicant to prepare and implement an Operational Environmental Management Plan (OEMP) including details relating to management and regular performance monitoring of air quality generated by the Project and measures to proactively respond to and deal with air quality complaints. Despite a requirement for regular performance monitoring, the submitted OAQMP indicates that an air quality monitoring program would only be established for the initial phase of operation, focused on the key pollutants PM₁₀ and NO₂.
- **The air quality monitoring program shall be carried out by a suitably qualified and experienced air quality consultant for the entire duration of the site's operation.** The implementation of a comprehensive air quality monitoring program during the entire operational phase of the Project would assist in measuring air quality trends and compliance rates during these periods. Council supports the comprehensive monitoring initiatives during the operational phase of the development to encourage environmental best practice and facilitate adherence with the Approval.

Regards,

██████████
Executive Planner



██████████ | ██████████ | www.liverpool.nsw.gov.au
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From: [REDACTED]
Sent: Wednesday, 8 May 2019 4:16 PM
To: [REDACTED]
Subject: FW: Moorebank Precinct East - Operation Air Quality Management Plan

Hi [REDACTED],

Are you able to advise if you wish to review the above.

DPE has advised, that strictly speaking we are not required to but has advised that as Council will be the ARA the EPA recommends that Council does comment

Happy to discuss

Regards

[REDACTED]
Manager Planning and Transport Strategy



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From: [REDACTED]
Sent: Wednesday, 8 May 2019 3:51 PM
To: [REDACTED]
Subject: Moorebank Precinct East - Operation Air Quality Management Plan

Hi [REDACTED]

Please find attached the original email sent from the Applicant (Tactical Group on behalf of SIMTA) to Murray Wilson on 11 April 2019 seeking LCC's comments on the OAQMP for the Moorebank Precinct East development. A dropbox link is included in the email attached.

I've also attached EPA's consultation letter which is where the suggestion to provide the plan to LCC originated (not DPE as stated).

As the condition only requires EPA consultation to be completed I will be commencing a review of this document and preparing it for approval. However, as LCC will be the ARA I definitely welcome any comments you have on the plan.

If you could please provide comments on the plan to the Applicant prior to the 17 May, (and cc me in) this would be greatly appreciated and will form part of the Planning Secretary's consideration of the approval.

Please give me a call if you require any further information.

Kind regards,

Jake Shackleton

Senior Environmental Assessment Officer
Infrastructure Management
Level 29, 320 Pitt Street | GPO Box 39 | Sydney NSW 2001



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Operational Air Quality Management Plan (Revision 002 dated 1 April 2019)

Status of comments from LCC

Stakeholder	Comment Date	Stakeholder Comment	Arcadis Response	Response Date
LCC	16-May-2019	It is unclear who the actual authors are associated with an environmental consultancy regarding the Operational Air Quality Management Plan Moorebank Logistics Park- East Precinct (Report No. PREC-QPMS-EN-PLN-0012, Revision 002) prepared by [REDACTED] and [REDACTED] dated 1st April 2019.	'Author Details' table updated to reflect [REDACTED] as the reviewer of the document.	17-May-2019
LCC	16-May-2019	The NSW EPA confirmed that they did not wish to comment on any of the Operational Management Plans for the Intermodal as a licence is not required for Schedule 1 activities under the Protection of the Environment Operations (POEO) Act 1997. According to Schedule 1 of the POEO Act 1997, 'railway systems activities' means "the installation, on site repair, onsite maintenance or onsite upgrading of track, including the construction or significant alteration of any ancillary works or the operation of rolling stock on track". However, 'railway systems activities' does not include the loading of freight into or onto and unloading of freight from, rolling stock or an activity at a freight depot or centre.	The MLP East Precinct constitutes construction and operation of a 'freight depot or centre, where freight will be loaded onto and from rolling stock', as defined under the POEO Act. Under Clause 33(2) (f) and (g) of Schedule 1 of the POEO Act, these activities are excluded from the definition of a 'railway systems activity', for which an EPL is required under the POEO Act. Advice from the EPA (DOC 13/6031, 25 February 2013) states that construction and operation of private sidings and turnouts do not require an EPL. For these reasons, an EPL is not required for operation of the MLP Est Precinct.	17-May-2019
LCC	16-May-2019	Section 6 of the POEO Act 1997 stipulates that a local authority is the Appropriate Regulatory Authority (ARA) for non-scheduled activities within its area except for a matter for which a public authority (other than the local authority) is declared under subsection (3) to be the ARA. In these circumstances, a public authority is the ARA for a matter for which it is declared to be the ARA by the Regulations. The proposed SIMTA Intermodal Terminal Facility represents a large-scale operation and Liverpool City Council is not equipped or resourced to regulate the facility which is proposed to operate 24 hours a day, 7 days a week. Therefore, it is our view that the NSW EPA shall be declared, under section 6 (3) of the POEO Act 1997, the ARA for all non-scheduled activities associated with the SIMTA Intermodal Terminal Facility.	The Department of Planning and Environment (DP&E) has confirmed in consultation with Tactical Group, that DP&E Compliance will act as the Appropriate Regulatory Authority (ARA) for the MLP East Precinct Facility. Due to this, neither the NSW Environmental Protection Agency nor the Liverpool City Council are required to be the ARA, and therefore it is considered acceptable that the NSW EPA are not required to perform reviews of Operational Management Plans for the development.	17-May-2019

Stakeholder	Comment Date	Stakeholder Comment	Arcadis Response	Response Date
LCC	16-May-2019	Based upon the submitted information, it is understood that an Environmental Representative would be appointed by the proponent to immediately respond to any future pollution incidents, complaints and concerns. Although self-regulation is important, an appropriately skilled and resourced Regulatory Authority is required to control site activities. It is our understanding that the NSW EPA would be the ARA for the operation of rolling stock on track. Therefore, it was expected that the NSW EPA would have an interest in reviewing and commenting on the Operational Management Plans for the development.	As above, the DP&E has confirmed in consultation with Tactical Group, that the DP&E Compliance will act as the ARA for the MLP East Precinct Facility.	17-May-2019
LCC	16-May-2019	If the NSW EPA is reluctant to provide feedback in relation to the Operational Management Plans and regulate non-scheduled construction and operational activities at the facility. Potential risks to the environment and public health are likely to eventuate given the Government's perseverance in appointing Council as the ARA. It is envisaged that the Department of Planning and Environment will have primary responsibility for assessing compliance with the approval during the construction and operational phases of the project. According to the NSW Planning and Environment website, the Department of Planning and Environment's compliance team monitors and enforces the conditions of projects granted by the Minister for Planning or their delegate. Our belief is that the Department of Planning and Environment is equipped with the appropriate skills, knowledge and enforcement powers to regulate the proposed development during construction and operation. A united regulatory response between the Department and NSW EPA would alleviate Council's role in regulating non-scheduled activities at the site.	As above, the DP&E has confirmed in consultation with Tactical Group, that DP&E Compliance will act as the ARA for the MLP East Precinct Facility.	17-May-2019
LCC	16-May-2019	The OAQMP references 'Australian / New Zealand Standard AS/NZS 3580.1.1:2007 (Methods for Sampling and Analysis of Ambient Air, Part 1.1 Guide to Siting Air Monitoring Equipment)'. This Standard was superseded by AS/NZS 3580.1.1:2016 Methods for sampling and analysis of ambient air - Part 1.1: Guide to siting air monitoring equipment.	Section 2.1 – reference to 'Australian / New Zealand Standard AS/NZS 3580.1.1:2007 (Methods for Sampling and Analysis of Ambient Air, Part 1.1 Guide to Siting Air Monitoring Equipment)' has been removed and replaced with AS/NZS 3580.1.1:2016 Methods for sampling and analysis of ambient air - Part 1.1: Guide to siting air monitoring equipment.	17-May-2019

Stakeholder	Comment Date	Stakeholder Comment	Arcadis Response	Response Date
LCC	16-May-2019	The Minister's CoC required the Applicant to prepare and implement an Operational Environmental Management Plan (OEMP) including details relating to management and regular performance monitoring of air quality generated by the Project and measures to proactively respond to and deal with air quality complaints. Despite a requirement for regular performance monitoring, the submitted OAQMP indicates that an air quality monitoring program would only be established for the initial phase of operation, focused on the key pollutants PM₁₀ and NO₂.	Section 4.1 was updated in Revision 3 of the OAQMP. The update included the addition of the following: <i>'Real-time boundary monitoring will be installed to measure PM₁₀, PM_{2.5} and NO₂ emissions throughout Operation'</i> This was included to address the requirement for regular performance monitoring throughout Operation. Figure 3-2 shows the locations of these continuous real-time monitors for the MLP East Precinct Facility	17-May-2019
LCC	16-May-2019	The air quality monitoring program shall be carried out by a suitably qualified and experienced air quality consultant for the entire duration of the site's operation. The implementation of a comprehensive air quality monitoring program during the entire operational phase of the Project would assist in measuring air quality trends and compliance rates during these periods. Council supports the comprehensive monitoring initiatives during the operational phase of the development to encourage environmental best practice and facilitate adherence with the Approval.	Table 4-2 outlines the continuous real-time monitoring of air quality which will be undertaken for the duration of Operations. These pollutants will be reported on a monthly basis by the Site Safety, Health, Environment and Quality (SHEQ) Manager/Advisor. There are no specific requirements in the MLP Project Approvals that require that the <i>'air quality monitoring program to be carried out by a suitably qualified and experienced air quality consultant for the entire duration of the site's operation'</i>. However, the OAQMP inclusive of the air quality monitoring program was developed, in part, by [REDACTED] who is a senior air quality consultant with over 14 years' experience as a specialist in air quality management. This is reflected in the 'Author Details' section at the beginning of the Plan.	17-May-2019