

MANGOOLA OPEN CUT

GLENCORE



Air Quality and Greenhouse Gas Management Plan

Number: MANOC-1772150304-6732

Owner: Coordinator - Environment & Community

Status: Approved

Version: 2.0

Effective: 26/03/2025

Review: 26/03/2028

Uncontrolled unless viewed on the intranet

Table of Contents

1.	Introduction	4
1.1	Overview of Approved Operations	4
1.2	Scope	8
1.3	Objectives.....	8
1.4	Regulatory Requirements	9
	1.4.1 State Significant Development Consent.....	9
	1.4.2 Environment Protection Licence	9
	1.4.3 Consultation	9
1.5	Definitions	9
2.	Baseline data.....	11
2.1	Meteorological data.....	11
2.2	Particulate data.....	14
2.3	Diesel combustion emissions	15
3.	Impact Assessment Criteria.....	17
3.1	Land Acquisition Criteria	17
3.2	Cumulative Emissions.....	17
4.	Air Quality Management Controls.....	18
4.1	Design Controls	18
4.2	Operational Controls.....	18
	4.2.1 Proactive Controls.....	18
	4.2.2 Reactive Controls	20
4.3	Community Mitigation	20
	4.3.1 Mangoola mine-owned residences.....	21
	4.3.2 Other mine-owned residences.....	21
4.4	Odour Management.....	21
4.5	Spontaneous Combustion Management	21
4.6	Blast management	21
4.7	Greenhouse Gas.....	22
	4.7.1 Glencore Greenhouse Gas Targets.....	22
	4.7.2 GHG Management Controls	23
	4.7.2.1 Design and Planning Controls	23
	4.7.2.2 Procurement	23
	4.7.2.3 Continuous improvement.....	23
4.8	Diesel combustion emissions	24
4.9	Training	24
5.	Air Quality Monitoring Methodology	25
5.1	Monitoring Standards	25
5.2	Air Quality Monitoring Program.....	25

5.3	Independent Review and Land Acquisition Process	27
6.	Reporting and Reviewing	29
6.1	Reporting.....	29
6.2	Community Complaints Response	30
6.3	Performance evaluation.....	30
	6.3.1 Non-compliance	30
	6.3.2 Incident notification	31
6.4	Contingency Plan and Adaptive Management.....	31
6.5	Corrective Action.....	32
6.6	Records.....	33
6.7	Access to Information	33
6.8	Auditing	33
6.9	Plan Review	33
6.10	Document review history.....	34
7.	References	35
	Appendix A – Approvals Summary	36
A1	Approval Conditions	36
A2	Environmental Protection Licence (EPL) 12894 Conditions	46
A3	MCCO Statement of Commitments	49
	Appendix B – Consultation.....	51
	Appendix C – Authority Correspondence.....	52

1. Introduction

1.1 Overview of Approved Operations

Mangoola Coal Operations Pty Limited (Mangoola) operates an open cut coal mine located near Wybong, approximately 20 kilometres west of Muswellbrook and approximately 10 kilometres north of Denman in the Muswellbrook Local Government Area (refer to *Figure 1-1*).

In April 2021, Mangoola was granted Development Consent under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) for State Significant Development (SSD) 8642 by the NSW Independent Planning Commission (IPC) for continued operations at the Mangoola Coal Mine. SSD 8642 enables the continuation of mining at Mangoola Coal Mine at up to 13.5 million tonnes per annum (Mtpa) of Run of Mine (ROM) coal through to 2030. The Project Boundary for Mangoola Coal Mine is presented in *Figure 1-1*.

In accordance with SSD 8642, operations permitted to be undertaken at Mangoola Coal Mine generally comprise:

- Open cut mining at up to 13.5 Mtpa ROM coal using truck and excavator mining methods through to 2030.
- Continued operations within the existing Mangoola Coal Mine including the use of existing infrastructure facilities.
- Mining operations in a new mining area located north of the existing Mangoola Coal Mine, Wybong Road, south of Ridgeland Road and east of the 500 kilovolt (kV) Electricity Transmission Line (ETL).
- Continuation of an out-of-pit overburden emplacement area.

Mining operations, coal handling and washing, rail load out and all associated activities operate on a 24 hours per day, seven days per week basis with the exception of the mobile gravel crushing plant which is restricted to 7am to 6pm Monday to Friday and 8am to 1pm on Saturdays with no operations on public holidays or Sundays. Blasting is typically undertaken between the hours of 9am and 5pm Monday to Saturday. No blasting is undertaken on Sundays or public holidays.

A detailed description of the approved operations at Mangoola Coal Mine, is provided in Chapter 3 of the *Mangoola Coal Continued Operations (MCCO) Project Environmental Impact Statement* (EIS) (Umwelt 2019). An overview of the air quality assessment findings can be found in Chapter 6.5 of the EIS.

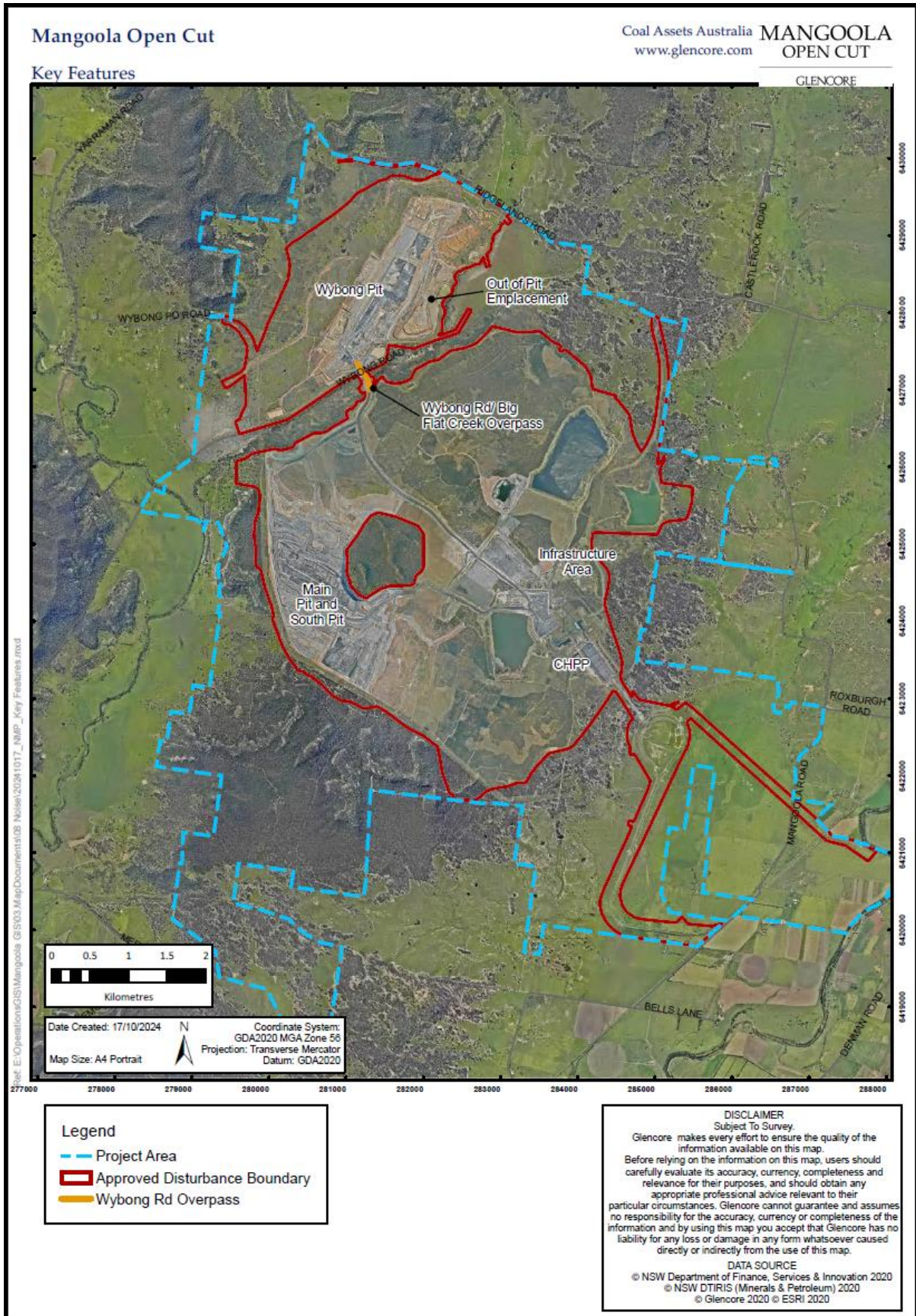


Figure 1-2 illustrates the key features of the Mangoola operation as approved by SSD 8642.

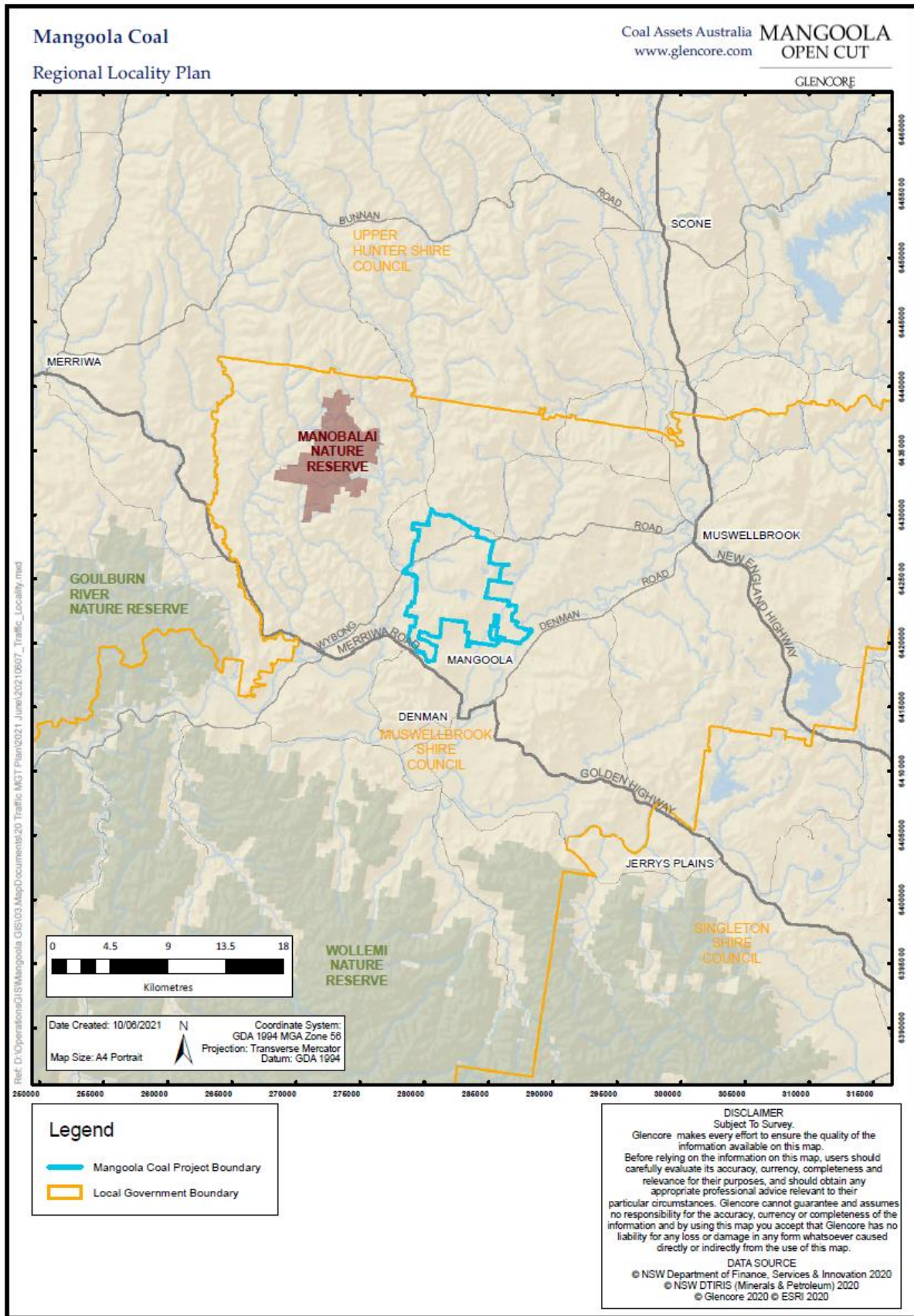


Figure 1-1 Regional Context

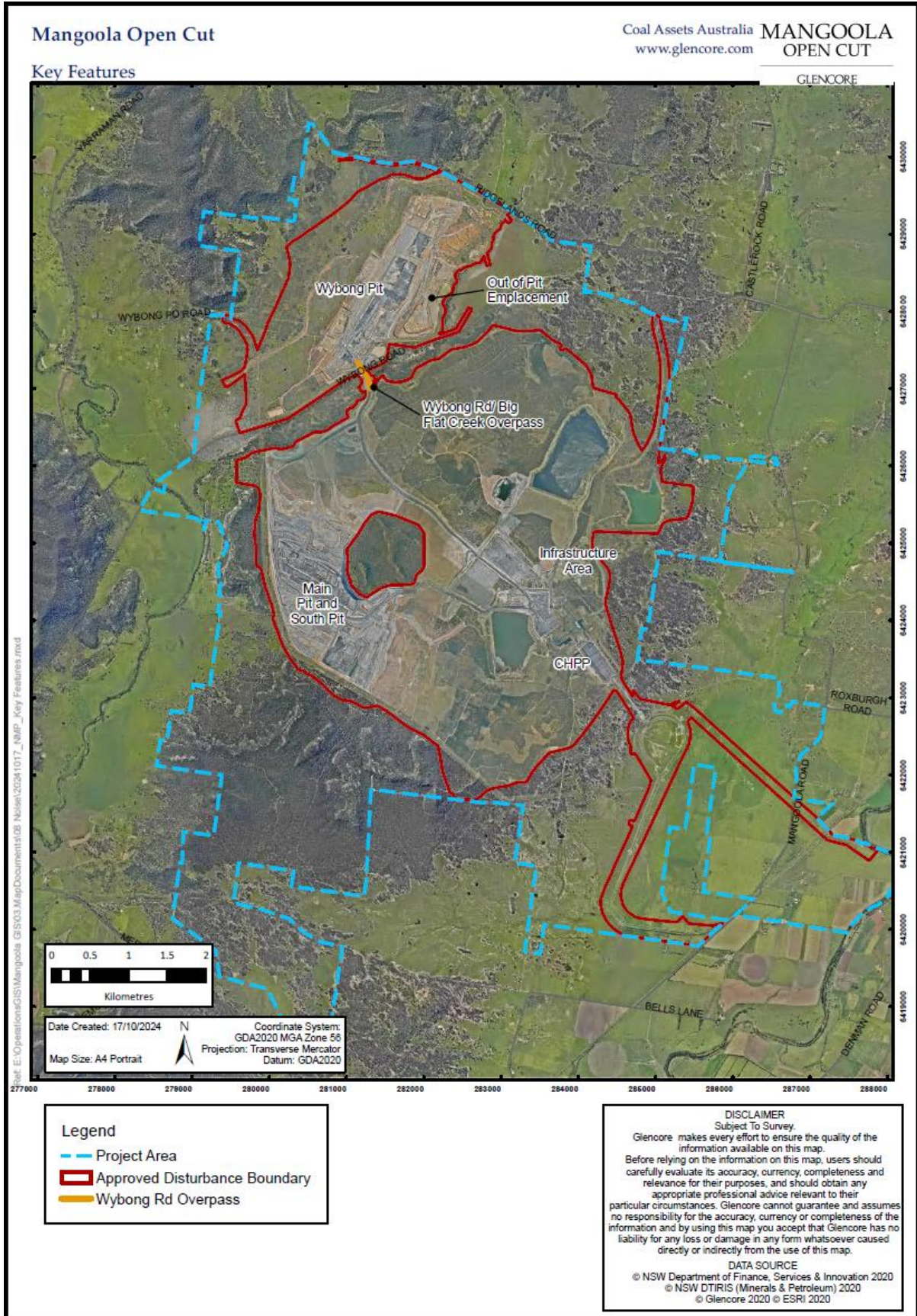


Figure 1-2 Key Features of the Mangoola Operation

1.2 Scope

As stated in **Section 1.1**, Mangoola was issued Development Consent for SSD 8642 on 26 April 2021. As permitted under Condition A24(a) of SSD 8642, a staged AQMP was implemented to transition from the requirements under PA 06-0014 (Stage 1) to the commitments linked to the commencement of development and construction of SSD 8642 (Stage 2). The Air Quality Management Plan has been consolidated into this Air Quality Greenhouse Gas Management Plan (AQGGMP) (Stage 3) and updated to address SSD 8642 Condition B31 which is required to be approved by the Planning Secretary prior to the commencement of mining operations north of Wybong Road. **Table 1-1** outlines the plan stages.

Table 1-1 Staged implementation of AQMP

Stage	Plan	Description
1	AQMP	Approved operations as per PA 06_0014 and prior to commencement of Development associated with SSD 8642
2	AQMP	Following the commencement of Development under SSD 8642
3	AQGGMP	Prior to the commencement of mining north of Wybong Road under SSD 8642

1.3 Objectives

The objectives of the AQGGMP include the following:

- maintain an air quality monitoring system to assess the air quality impact on surrounding sensitive receivers and performance of Mangoola Open Cut against the specific air quality impact assessment criteria (refer to **Section 3**);
- implement best practice management to minimise the off-site odour, fume, dust, Scope 1 and 2 greenhouse gas emissions and improve the energy efficiency of the project (refer to **Section 4.1 to 4.4 and 4.7 to 0**);
- implement predictive meteorological forecasting and real-time air quality monitoring to guide the day-to-day planning of mining operations (refer to **Section 4.2**);
- minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (refer to **Section 4.2**);
- minimise any visible off-site air pollution (refer to **Section 4.2**);
- minimise the surface disturbance of the site, as far as practicable, generated by the project (refer to **Section 4.2**); and
- manage air quality related community complaints in a timely and effective manner (refer to **Section 6.2**).

1.4 Regulatory Requirements

1.4.1 State Significant Development Consent

This AQGGMP has been prepared in accordance with Condition B31 of SSD 8642. A full list of the SSD 8642 conditions relating to air quality and where they are addressed within this document are included in **Appendix A**.

1.4.2 Environment Protection Licence

Mangoola Open Cut was issued Environment Protection Licence (EPL) 12894 on 7 July 2008 which was last varied on 6 October 2023. A full list of the current EPL 12894 conditions relating to air quality and where they are addressed within this document are included in **Appendix A**.

1.4.3 Consultation

This plan has been updated by Todoroski Air Sciences whose appointment was endorsed by the Planning Secretary. The endorsement letter from the Planning Secretary is in **Appendix C**.

In accordance with Condition B31 this Air Quality and Greenhouse Gas Management Plan has been prepared in consultation with the Community Consultative Committee. The CCC were provided with updates on the progress of the AQGGMP and were provided a copy of the draft Management Plan for their comment. Evidence of consultation in accordance with SSD 8642 A22 is included in **Appendix B**.

During the review of the AQGGMP in 2024, the CCC was provided with details of the changes to be made during the Quarter 4 CCC meeting. The draft AQGGMP was sent to CCC members for feedback and no feedback was received.

1.5 Definitions

The terminology utilised within this AQGGMP is defined in **Table 1-2**.

Table 1-2 Terminology utilised within the AQGGMP

Term	Definition
BAM	Beta Attenuation Monitor
EMS	Environmental Management Strategy
HVAS	High Volume Air Sampler
Incident	An occurrence or set of circumstances that cause or threaten to cause material harm and which may or may not be or cause a non-compliance.
Mangoola mine-owned	Land owned by Mangoola Open Cut
Other mine-owned	Land owned by another mining company
PM₁₀	Particulate matter less than 10 micrometers (µm) in size
PM_{2.5}	Particulate matter less than 2.5 micrometers (µm) in size

Term	Definition
Project Approval	PA 06_0014 consolidated project approval
Residence	An occupied dwelling (criteria does not apply to unoccupied dwellings)
Scope 1 greenhouse gas emissions	The emissions released to the atmosphere as a direct result of an activity, or series of activities at a facility level.
Scope 2 greenhouse gas emissions	The emissions released to the atmosphere from the indirect consumption of an energy commodity.
SSD 8642	Development Consent granted by NSW IPC for State Significant Development 8642 on 26 April 2021
Privately-owned land	Land that is not owned by a public agency, or a mining company (or its subsidiary)
TSP	Total Suspended Particulates ($\mu\text{g}/\text{m}^3$). The nominal size of this fraction has particles with a diameter of up to 50 micrometers (μm)
TEOM	Tapered Element Oscillating Microbalance dust sampling unit
$\mu\text{g}/\text{m}^3$	Micrograms per cubic metre
UHAQMN	Upper Hunter Air Quality Monitoring Network

2. Baseline data

The existing air quality and meteorological environment has been categorised by monitoring data collected from the Mangoola air quality monitoring network as described in Section 5

2.1 Meteorological data

Figure 2-1 WSN rainfall data Oct 2010 – June 2022 **Figure 2-1** presents the baseline rainfall data for the WSN on-site weather for October 2020 to June 2022. WSN was replaced by WSN1 in July 2022, **Figure 2-2** presents the baseline data for the WSN1 on-site weather for July 2022 to October 2024.

Baseline wind speed and direction data for WSN have been obtained from the MCCO Project EIS (Umwelt 2019). **Figure 2-3** shows the annual wind patterns for 2012, 2013, 2014, 2015 and 2016. It can be seen from these windroses that the most common winds in the area are from the east-southeast, southeast, and west-northwest. This pattern of winds is common for many parts of the Hunter Valley and reflects the northwest-southeast alignment of the valley.

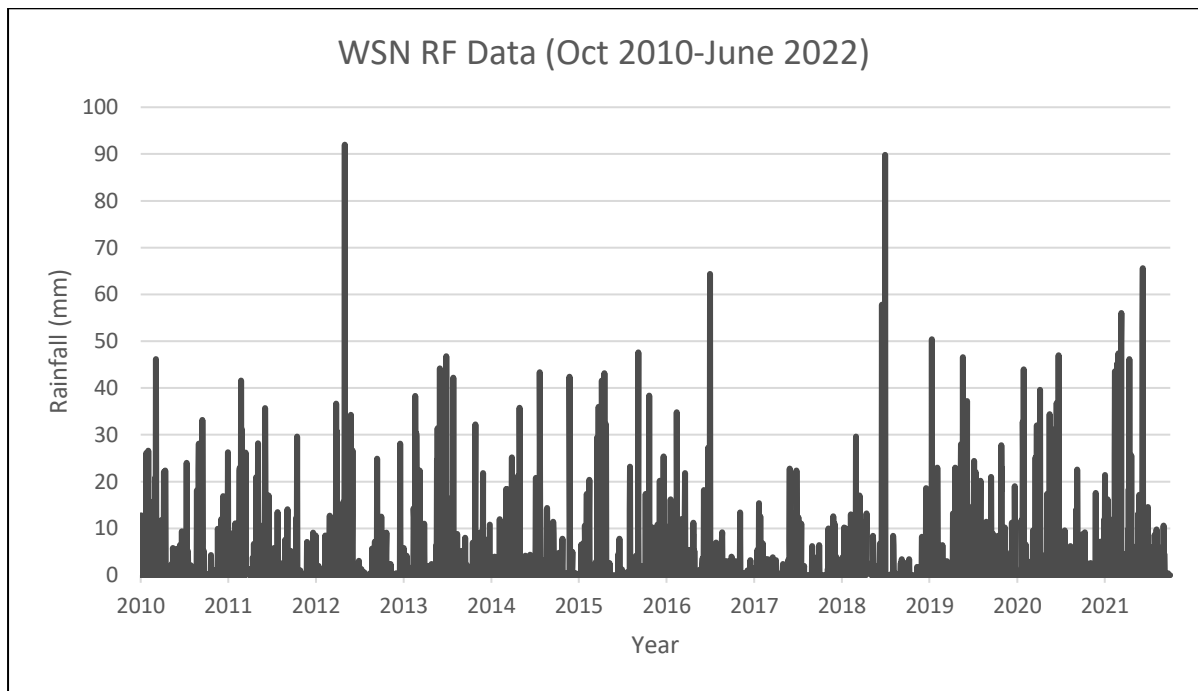


Figure 2-1 WSN rainfall data Oct 2010 – June 2022

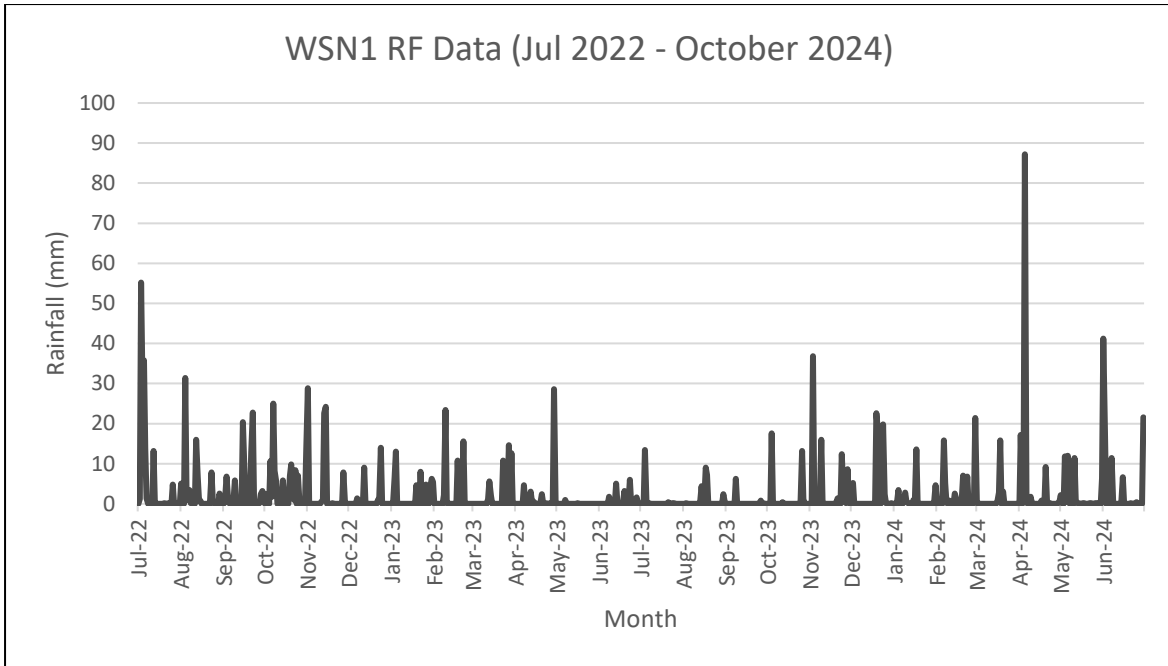


Figure 2-2 WSN1 rainfall data July 2022 – Oct 2024



Figure 2-3 Annual wind-roses for data collected at WSN meteorological station

2.2 Particulate data

Figure 2-4 and Figure 2-5 presents the long term PM₁₀ and TSP monitoring results in the vicinity of Mangoola (source Mangoola Open Cut 2023 Annual Review).

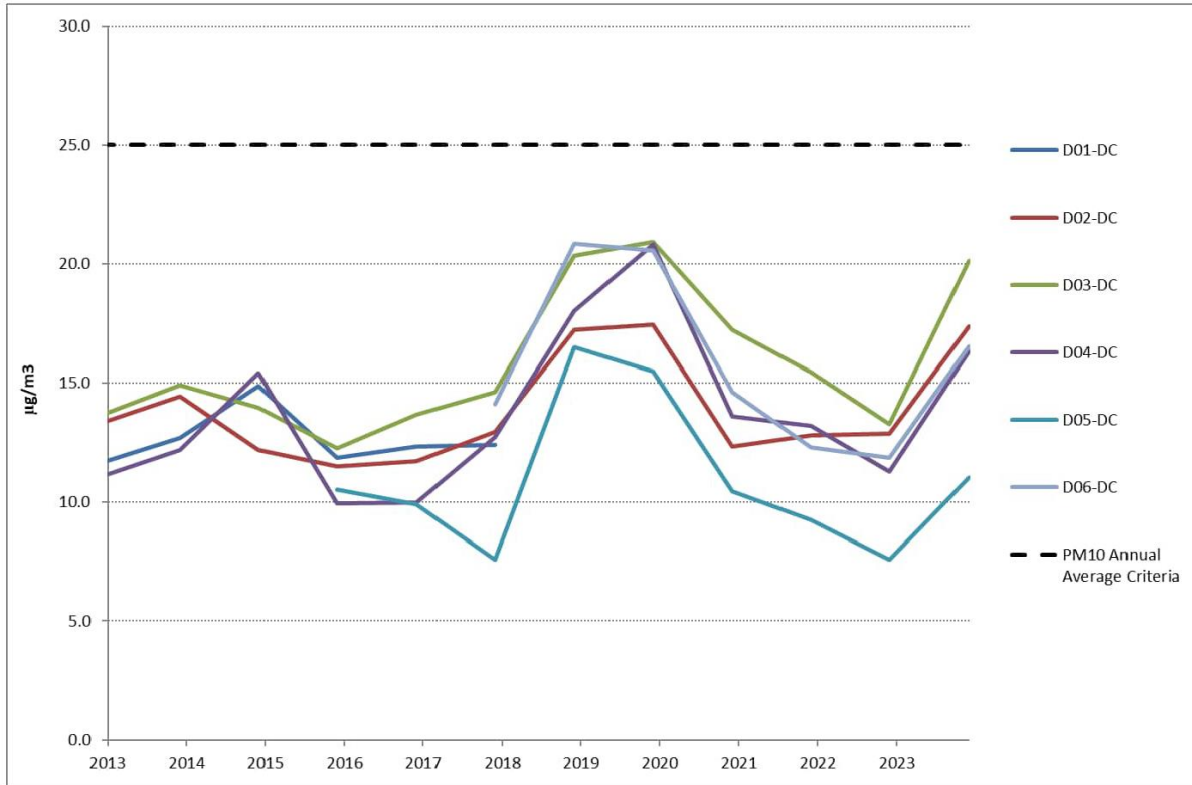


Figure 2-4 Long term annual average PM₁₀ TEOM monitoring results

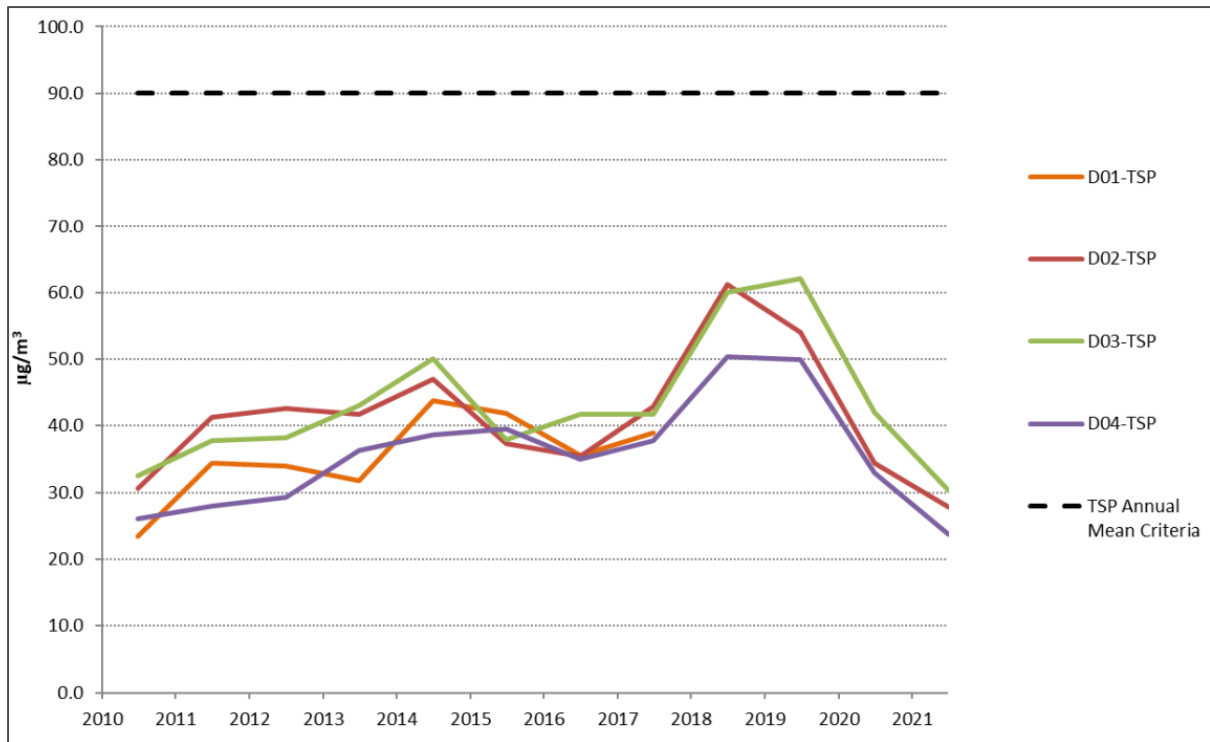


Figure 2-5 Long term annual average TSP HVAS monitoring results

2.3 Diesel combustion emissions

Baseline estimates of particulates and NO_x from diesel exhaust emissions are presented in **Table 2-1** and **Table 2-2** per the requirements of SSD 8642 Condition B31 (e) (i). These estimates were obtained from the MCCO Project EIS (Umwelt 2019).

Table 2-1 Diesel combustion emissions - particulates

Total fuel used (litres) (based on maximum annual fuel usage between 2015 and 2017) (L/y)	Emission factors (kg/kL)		Emissions (kg/y)	
	PM ₁₀	PM _{2.5}	PM ₁₀	PM _{2.5}
36,156,000	2.84	2.75	102,683	99,603

Table 2-2 Diesel combustion emissions – NO_x

Item	Value
Total fuel used (litres) (based on maximum annual fuel usage between 2015 and 2017)	36,156,000
Diesel exhaust emission factor (kg/kL)	40.77
Diesel exhaust emissions – all equipment (kg/y)	1,474,080

3. Impact Assessment Criteria

The air quality criteria outlined in Condition B27 of SSD 8642 apply to all operations associated with Mangoola Open Cut. The air quality criteria as outlined in Condition B27 of SSD 8642 are reproduced in **Table 3-1**.

Table 3-1 SSD 8642 Air quality criteria

Pollutant	Averaging Period	Criterion
Particulate matter < 10 µm (PM ₁₀)	Annual	^{a, c} 25 µg/m ³
	24 hour	^b 50 µg/m ³
Particulate matter < 2.5 µm (PM _{2.5})	Annual	^{a, c} 8 µg/m ³
	24 hour	^b 25 µg/m ³
Total suspended particulate (TSP) matter	Annual	^{a, c} 90 µg/m ³

Notes:

a Total impacts (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources).

b Incremental impact (i.e. incremental increase in concentrations due to the development on its own).

c Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Planning Secretary.

*In accordance with SSD 8642 Condition B28 the air quality criteria in **Table 3-1** do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to exceed the air quality criteria, and the Applicant has advised the Department in writing of the terms of this agreement.*

3.1 Land Acquisition Criteria

SSD 8642 Condition C1 provides that upon written request for acquisition from the owner of the privately-owned land listed in Table 10 the applicant may acquire the land in accordance with the procedures in SSD 8642 condition C12 to C19. One privately owned property (ID 83) is subject to acquisition upon request due to air quality as per Table 10 of Condition C1. This landowner is also entitled to air quality mitigation in accordance with SSD 8642 Conditions C2-C4 as appropriate.

In accordance with C5 (a)(i) of SSD 8642 letters were sent to the owners of privately-owned land listed in C1 Table 10 of SSD 8642 on the 17 May 2021. Should a written request be received, the process will be followed as per C12-C19 of SSD 8642.

3.2 Cumulative Emissions

The air quality impact assessment process included in the EIS involved assessments of cumulative dust emissions (TSP, PM₁₀ and PM_{2.5}) associated with the operations at Mangoola Open Cut, surrounding mining operations and other sources of dust generation within the surrounding area. With the nearest mines situated approximately 8 km from Mangoola Open Cut operations, the predicted contribution to cumulative impacts on surrounding properties was considered insignificant, however per Condition B30 (f) of SSD 8642, Mangoola will make all reasonable efforts to coordinate air quality management on the site with the air quality management at nearby mines to minimise cumulative impacts.

Mangoola will continue to monitor and assess air quality data, including data from the Upper Hunter Air Quality Monitoring Network (UHAQMN), in conjunction with meteorological data to determine

Mangoola Open Cut's contribution to recorded dust events. If a cumulative impact issue is identified, a process of investigation and mitigation will be undertaken as required.

4. Air Quality Management Controls

Air quality management controls and mitigation practices have been developed in line with best practice per the NSW Coal Benchmarking Study: International Best Practice Measures to Prevent and/or Minimise Emissions of Particulate Matter from Coal Handling (Katestone 2011) and the Mangoola Coal – Coal Mine Particulate Matter Control Best Management Practice Determination (2012) to minimise the impact of Mangoola Open Cut's operations on privately-and mine-owned residences. Specifically, these controls and practices aim to minimise the offsite impacts caused by wind-blown, traffic generated and blast dust. These controls and practices are detailed in **Section 4.1** to **Section 4.3**.

4.1 Design Controls

A number of air quality controls are incorporated into the design of the Mangoola Open Cut mine and infrastructure. The following mine design features were incorporated into the project design:

- overburden emplacement areas have been designed to minimise air quality impact on sensitive receivers to the east and south-east;
- all active roads will be clearly defined, and the development of minor roads will be limited;
- unsealed minor roads used regularly for access will be constructed so as to minimise dust generation (for example, by using well-compacted select material);
- the CHPP, coal stockpiles and associated infrastructure is located near the eastern boundary of the proposed disturbance area, within the valley that forms the upper reach of Anvil Creek. This area provides natural topographic shielding which will reduce dust impacts in the surrounding area;
- enclosure of overland raw coal conveyors;
- enclosure of coal handling and preparation plant; and
- retention of buffer lands surrounding operations.

4.2 Operational Controls

Mangoola Open Cut implements a number of operational controls to minimise dust emissions which may be generated from trafficable areas, coal preparation and handling, pre-strip operations, blasting, drilling and stemming. As part of this system, Mangoola Open Cut will implement proactive and reactive controls to manage dust generation.

4.2.1 Proactive Controls

A range of proactive measures are implemented by Mangoola Open Cut to manage dust emissions including:

- use of predictive meteorological forecasting to assist with mine planning when adverse meteorological conditions could give rise to dust emissions. This is sent via email as well as discussed in daily production meetings;

- discussion of the dust forecast at operational meetings;
- modify the planned mining activities, as appropriate, to minimise or avoid the potential dust impact;
- the air quality model developed for the MCCO Project EIS (SSD 8642) will be referred to when setting early warning alarms or analysing data;
- use of water carts to suppress dust generation on unsealed surfaces including haul roads, minor unsealed roads, vehicle manoeuvring areas, active extraction areas, dump tip heads, rehabilitation areas and drill pads. Chemical treatments / polymer suppressants may also be added to water carts in order to maintain surface moisture.
- enforcement of speed limits on all roads across the mine site in line with the site Transport Management Plan;
- only the minimum area necessary for mining operations will be disturbed at any time;
- rehabilitation of mining and overburden emplacement areas, and obsolete roads, will be undertaken in a timely manner according to the approved Annual Rehabilitation Report and Forward Program in order to minimise windblown dust potential;
- temporary revegetation of inactive mining areas, shaped dumps and topsoil stockpiles where there is the potential for excessive dust generation.
- automatic sprays fitted to the dump hopper and coal crushing plant minimise dust from coal processing activities. Any issues of ineffective sprays are to be reported to maintenance for action. Hoppers cannot be operated without sprays unless it is monitored and control over dust emissions is maintained;
- water sprays used on ROM coal stockpile areas;
- relevant personnel will be provided training in dust controls for mine operations;
- minimise double handling of material;
- identify material types that contain fine and/or friable fractions;
- prepare work areas prior to commencement of mining activities to minimise dust generation potential, e.g. watering of extraction areas / tip heads where practicable;
- sheltered dumping during periods of high winds (mine planning to include alternative dumping options in mine plans where available);
- minimise the fall distance of overburden materials during loading and unloading as far as practical;
- maintenance of conveyors and belt cleaning;
- when the mobile gravel crusher is on site, consideration to the use of sprays and to prevailing wind conditions will be given when siting the mobile plant;
- drill rigs will be fitted with water sprays and dust curtains and will be regularly maintained for their effective use. Dust control measures outlined in the Dust Handbook will be followed in relation to drill rigs.
- all plant and equipment are maintained and operated in a proper and efficient manner in accordance with manufacturers specifications and contemporary maintenance practices.

4.2.2 Reactive Controls

Mangoola's reactive management system will assess the need to modify activities in response to visual conditions, meteorological conditions and ambient air quality conditions.

Mangoola operates dust cameras to monitor visual dust and implements a visual dust trigger action response plan which has been prepared in accordance with the NSW EPA Dust Assessment Handbook (2019).

Mangoola's reactive management system involves:

- Alarm that triggers when wind speeds are high for an averaging period. This is a trigger for Supervisors to review the performance of current dust controls and implement further controls where required; and
- an automatic alarm system for the real-time particulate monitors will inform CHPP/Mining Supervisors when real time dust monitoring indicates dust levels are approaching or exceeding relevant criteria. This will trigger a review of current operations and enable appropriate operational response to further mitigate emissions as required.

Mangoola will implement a range of reactive dust control measures as required. These include:

- water sprays will be used at coal handling transfer points and on permanent raw and product coal stockpiles, with enhanced stockpile watering undertaken as required. Coal stockpile sprays will be activated if visual inspections identify that the moisture content of the coal is not sufficient to manage dust levels without additional application of water;
- modification of operations and other activities under adverse meteorological conditions or extraordinary events as identified by field observations and/or the sites continuous meteorological monitoring stations. This includes restricting or ceasing uncontrolled dust-generating activities, targeted use of water carts, defining of trafficked areas and driving to the conditions (reduced vehicle speed limits); and
- topsoil stripping and handling activities may be ceased during adverse meteorological conditions when dust controls are ineffective (e.g. use of water as suppressant) and these activities are identified as the source.

The potential air quality impact of specific activities such as drilling and stemming, coal handling and trafficable exposed areas will be managed in accordance with this AQGGMP and relevant operational procedures. The effectiveness of dust controls will continue to be evaluated throughout the life of the mine. Additional dust management controls, including new technologies, will be investigated and implemented where practicable.

4.3 Community Mitigation

Mangoola Open Cut will offer specific mitigation measures to members of the community in accordance with the commitments in the MCCO Project EIS (Umwelt 2019). Mitigation measures have been advertised in the Mangoola Open Cut Community Newsletter as required.

- those private landowners living within a 4 km radius of the active mining area will be offered an inspection and if deemed required, cleaning of residential rainwater tanks once per year, upon written request.
- private landowner living within a 4 – 6 km radius of active mining operations will be offered an inspection and if deemed required, cleaning of residential rainwater tanks every two years, upon written request.

4.3.1 Mangoola mine-owned residences

Particulate matter emissions generated by Mangoola Coal Mine must not exceed the criteria listed in **Table 3-1** at any occupied residence on mine-owned land. The modelling in the EIS (Jacobs, 2019) and the current Mangoola land ownership register indicate that there would be no predicted exceedances of the air quality criteria of occupied mine-owned residences due to the operation of MCCO.

In accordance with Condition B29 of SSD8642 all occupiers of Mangoola mine owned land have had the following information provided to them as part of their general tenancy agreement and rental information:

- The tenants have been provided the NSW Government 'Mine Dust and You' fact sheet;
- Advice on how to access air quality monitoring results through the company website; and
- Have been advised of their ability to terminate the tenancy agreement without penalty at any time.

Monitoring data is also available in a format where advice can be sought from a medical practitioner to assist the tenant in making informed decisions on the health risks associated with occupying the property.

4.3.2 Other mine-owned residences

All other mine owned properties will be treated as sensitive receptors in line with requirements for private properties. In accordance with B29 of SSD 8642 particulate matter emissions generated by Mangoola Coal Mine must not exceed the criteria listed in **Table 3-1** at any occupied residence on mine-owned land (including land owned by another mining company) until the residence is aware of the rights they would have under the development consent. The modelling in the EIS (Jacobs, 2019) does not predict exceedances of the air quality criteria at the surrounding other mine-owned residences due to the operation of the MCCO.

4.4 Odour Management

In accordance with Condition B26 of SSD 8642 and Section 129 of the POEO Act, Mangoola Open Cut must ensure that no offensive odours are emitted from the site.

All reasonable and feasible measures to minimise off-site odours from the site will be implemented. Corrective actions will be undertaken as necessary, in accordance with **Section 6.5**.

4.5 Spontaneous Combustion Management

In accordance Condition B30 of SSD 8642, Mangoola Open Cut is required to take all reasonable steps to manage and minimise the risk of spontaneous combustion from the site. Corrective actions will be undertaken as necessary, in accordance with **Section 6.5**.

Mangoola Open Cut's Spontaneous Combustion Management Plan details the monitoring and control measures used by Mangoola Open Cut to reduce the incidence and impact of spontaneous combustion.

4.6 Blast management

Blast fume is managed in accordance with Mangoola Open Cut's Blast Fume Management Strategy. This document outlines the monitoring and control measures for minimising blast fume potential and impact at Mangoola Open Cut.

Mangoola Open Cut's Blast Management Plan details the control measures used by Mangoola Open Cut to reduce the incidence and impact of blast related dust emissions generated from the operation.

These measures include a review of meteorological conditions prior to blasting and management of blasting design and operation to assist with minimising dust generation in the blasting process. This process will include:

- consideration of material and explosives characteristics;
- hole sizing and stemming material specification;
- accurate placement and drilling of holes;
- accurate explosives loading; and
- correct stemming height of blast holes.

4.7 Greenhouse Gas

Mangoola Open Cut will implement best practice control measures, where reasonable and feasible, to minimise Scope 1 and Scope 2 greenhouse gas emissions and improve the sites energy efficiency. A summary of the mitigation measures implemented are outlined below:

- limiting the length of haulage routes (where feasible) and associated fuel consumption;
- scheduling activities so that equipment and vehicle operation and maintenance is optimised;
- selecting new equipment and vehicles that have high energy efficiency;
- maximising truck payloads to maximise productivity and efficiency;
- reducing idling times;
- consideration of energy efficiency of all new major electrical equipment; and
- turn off unnecessary lighting around the mine consistent with safety requirements.

Mangoola Open Cut will continue to investigate ways to reduce greenhouse gas emissions generated by the Project. Any further measures to be implemented to improve the sites environmental performance will be detailed in the Annual Review.

Ongoing monitoring of greenhouse gas emissions would be achieved through participation in the National Greenhouse and Energy Reporting Scheme (NGERS). Per the NGERS requirements, greenhouse gas emissions and energy consumption are estimated and reported on an annual basis. The greenhouse gas performance for each annual period will be reported in the Annual Review.

Mangoola Open Cut is also a Safeguard Facility (Mangoola's emissions typically exceed 100,00 t CO₂e) and is subject to the emissions reduction requirements and decarbonisation incentives which form part of the Safeguard framework, and underpin Australia's Nationally Determined Contributions.

The following sections describe Glencore corporate and site-based GHG management controls and targets.

4.7.1 Glencore Greenhouse Gas Targets

Mangoola Open Cut's Scope 1, 2 and 3 emissions form part of its parent company, Glencore's, emissions reduction targets and ambitions for its global portfolio. These are:

- 2026 target: 15% reduction in Scope 1, 2 and 3 industrial CO₂e emissions against a restated 2019 baseline by the end of 2026.
- 2030 target: 25% reduction in Scope 1, 2 and 3 industrial CO₂e emissions against a restated 2019 baseline by the end of 2030.
- 2035 target: 50% reduction in Scope 1, 2 and 3 industrial CO₂e emissions against a restated 2019 baseline by the end of 2035.
- 2050 ambition: to achieve net zero industrial CO₂e emissions, subject to a supportive policy environment by the end of 2050.

Glencore has also committed to the responsible phase-down of thermal coal and is not progressing any thermal coal greenfield investments.

4.7.2 GHG Management Controls

4.7.2.1 Design and Planning Controls

The Mangoola Open Cut pit design was selected based on operational efficiency and development cost, as well as environmental factors. The concept mine plan was based on a design that reduced impact, provided the most cost-effective design and shortened overburden haulage distances.

The conceptual design process included specific consideration of energy efficiency and GHG emissions. The mine planning process considered issues such as selecting fleet vehicles, truck haul routes, waste removal placement and rehandling material to optimise diesel use efficiency.

- Haul routes: Out of pit dumps have been designed to optimise impacts to external parties and haul route distances. Where practical, ramp placement and ramp grades have been designed to maximise haulage efficiency.
- Scheduling material removal and placement: Rehandling material and energy use can be reduced by optimising removal and placement schedules. Mangoola Open Cut's design has been developed to minimise the rehandling of waste and coal materials.
- Energy efficiency review: the preferred mine design was also informed by a specific energy efficiency review, completed as part of the EA.

Annual business planning processes require Mangoola Open Cut to review and ensure that mine plans, schedules and haulage routes continue to optimise efficiency.

4.7.2.2 Procurement

Site procurement processes require all procurements to be approved via an Application for Expenditure (AFE), and energy efficiency (which typically results in GHG reductions) is a consideration of procurement processes.

4.7.2.3 Continuous improvement

At a site level, Mangoola Open Cut conducts annual business planning processes which include consideration of GHG emissions and options for decarbonisation (with assistance from GCAA). Where options for emissions reduction are found to be reasonable and feasible, Mangoola will consider implementing such initiatives.

Additionally, all GCAA sites are required to consider ways to continuously improve the NGERS reporting process. The GCAA Energy and Greenhouse Gases Standard requires Mangoola to undertake a NGERS management review on an annual basis.

4.8 Diesel combustion emissions

In accordance with Condition B30 (b) of SSD 8642, Mangoola Open Cut will ensure that all 'non-road' mobile diesel equipment used in undertaking the development includes reasonable and feasible diesel emissions reduction technology.

Mangoola Open Cut will maintain emissions reductions components in accordance with manufacturer specifications so they remain fit for purpose over their whole life cycle.

Mangoola's management measures for diesel combustion emissions include:

- Servicing all machinery in accordance with maintenance contracts and adopting original equipment manufacturer recommendations for maintenance.
- Targeting the maintenance to ensure, as far as reasonably practical, equipment remains fit for purpose over its whole life cycle.
- Defining failure modes, effects and criticality which helps to minimise potential equipment failure.

4.9 Training

All Mangoola Open Cut personnel and contractors will undertake air quality awareness training as part of the Mangoola Open Cut general induction and additional toolbox talks where required to emphasise the importance of dust mitigation.

In accordance with Condition A31 of SSD 8642 all employees, contractors (and their sub-contractors) will be made aware of, and are instructed to comply with, the applicable conditions of SSD 8642 relevant to activities they carry out in respect of the development.

5. Air Quality Monitoring Methodology

5.1 Monitoring Standards

Air quality monitoring will be undertaken in accordance with the relevant Australian Standards and EPA approved methods for sampling including:

- The TSP High-Volume Air Sampler (HVAS) will be operated in accordance with AS/NZ 3580.9.3 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – Total suspended particulate matter (TSP) – High volume sampler gravimetric method.
- The PM₁₀ High-Volume Air Sampler (HVAS) will be operated in accordance with AS/NZ 3580.9.6 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM₁₀ high-volume sampler with size-selective inlet - Gravimetric method.
- The continuous PM₁₀ monitoring network will be operated in accordance with AS 3580.9.8 Methods for Sampling and Analysis of Ambient Air – Determination of Suspended Particulate Matter – PM₁₀ Continuous Direct Mass Method Using a Tapered Element Oscillating Microbalance Analyser).
- The EPL PM₁₀ monitoring points 18 and 19 are operated in strict accordance with Special Method 1 - "E-Sampler-9800 Particulate Monitor Operation Manual Revision K"
- The continuous PM_{2.5} monitoring network will be operated in accordance with AS 3580.9.12 Methods for Sampling and Analysis of Ambient Air – Determination of Suspended Particulate Matter – PM_{2.5} beta attenuation monitors.
- The weather stations will be maintained and operated in accordance with AS 3580.14 Methods for sampling and analysis of ambient air – Meteorological monitoring for ambient air quality monitoring applications and must be capable of measuring meteorological conditions in accordance with the NSW Noise Policy for Industry (EPA, 2017), unless a suitable alternative is approved by the planning Secretary following consultation with the EPA.

5.2 Air Quality Monitoring Program

The Mangoola Open Cut air quality monitoring program includes a combination of high volume air samplers (TSP and PM₁₀), real-time continuous dust monitoring devices (PM₁₀ and PM_{2.5}) and meteorological stations. The air quality monitoring network suitably represents air quality conditions at surrounding privately owned, Mangoola mine owned and other mine owned land. All monitoring locations are shown on *Figure 5-1* and summarised in *Table 5-1* to *Table 5-3*. These tables differentiate the compliance monitors representing private receptors, mine owned receptors, other mine owned receptors and complementary monitors.

The real-time TEOM data, including from the Upper Hunter Air Quality Monitoring Network, will be used to compliment HVAS data and will assist by means of the following:

- provide an understanding of regional dust events;
- provide an understanding of local dust events; and
- provide an understanding of potential dust episodes resulting from mining activities.
- The real-time monitors will be used to alert Mangoola Open Cut personnel so that the operation can be adjusted accordingly (refer to Section 4.2).

Table 5-1 Compliance Monitoring Points – Private Receptors

Monitoring Site	Type of Monitoring	Frequency*
D02-DC to D06-DC	TEOM: PM ₁₀	Continuous
D08-PM ₁₀	HVAS: PM ₁₀	Every 6 days
D02-TSP to D04-TSP	HVAS: TSP	Every 6 days
D02-PM _{2.5} , D04-PM _{2.5} , D06-PM _{2.5}	BAM: PM _{2.5}	Continuous

* Units may not operate at this frequency 100% of the time due to maintenance and calibration requirements, power outages, prevention of access by landowner, no access due safety concerns of personnel and other external events outside the control of Mangoola Coal.

Table 5-2 Compliance Monitoring Points – Mine Owned and Other Mine Owned Receptors

Monitoring Site	Type of Monitoring	Frequency*
D02-DC to D06-DC	TEOM: PM ₁₀	Continuous
D01-PM ₁₀ , D06-PM ₁₀ , D08-PM ₁₀ D09-PM ₁₀	HVAS: PM ₁₀	Every 6 days
D02-PM _{2.5} , D04-PM _{2.5} , D06-PM _{2.5}	BAM: PM _{2.5}	Continuous

* Units may not operate at this frequency 100% of the time due to maintenance and calibration requirements, power outages, prevention of access by landowner, no access due safety concerns of personnel and other external events outside the control of Mangoola Coal.

Table 5-3 Other Monitoring

Monitoring Site	Type of Monitoring	Frequency*	Purpose
D9-DC, D8-DC	E-sampler: PM ₁₀	Continuous	EPL Points 19 and 20 – situated immediately to the north and south of mining operations respectively. Alarms will be established based on air quality modelling contours.
WSN1	Meteorological	Continuous	EPL Point 5 Meteorological Station (North).
WSS	Meteorological	Continuous	EPL Point 18 Meteorological Station (South).

* Units may not operate at this frequency 100% of the time due to maintenance and calibration requirements, power outages, prevention of access by landowner, no access due safety concerns of personnel and other external events outside the control of Mangoola Coal.

Air quality monitoring locations will be reviewed and where necessary, modified over the life of operations according to progressive monitoring results, physical changes in mining operations, or following the acquisition of private property by Mangoola. Locations may also be reviewed where access to a private property is unavailable or a landowners written request to remove the gauge is received. These are unforeseeable over the life of the project.

The meteorological station (WSN1) will be operated for the life of mining activities in accordance with Part B Condition 35 of SSD8642. Both the northern meteorological station (WSN1) and southern meteorological station (WSS) will be operated in accordance with EPL 12894.

Both meteorological stations consist of instruments and a data-logging system attached to a 10-metre mast. Logged meteorological parameters include:

- wind speed at 10 metres above ground;
- wind direction at 10 metres above ground;
- sigma-theta from sampled wind direction measurements;
- temperature at 2 metres and 10 metres above ground;
- solar radiation; and
- rainfall.

5.3 Independent Review and Land Acquisition Process

In the event that a landowner considers that Mangoola Open Cut is exceeding air quality criteria at their property, the landowner may request an independent review of the air quality impacts at the property. The independent review will be conducted in accordance with the procedure described in Conditions C9 to C11 of SSD 8642 (refer to *Appendix A*). As noted in *Section 3.1* notifications in accordance with SSD 8642 have been made to the applicable landowners.

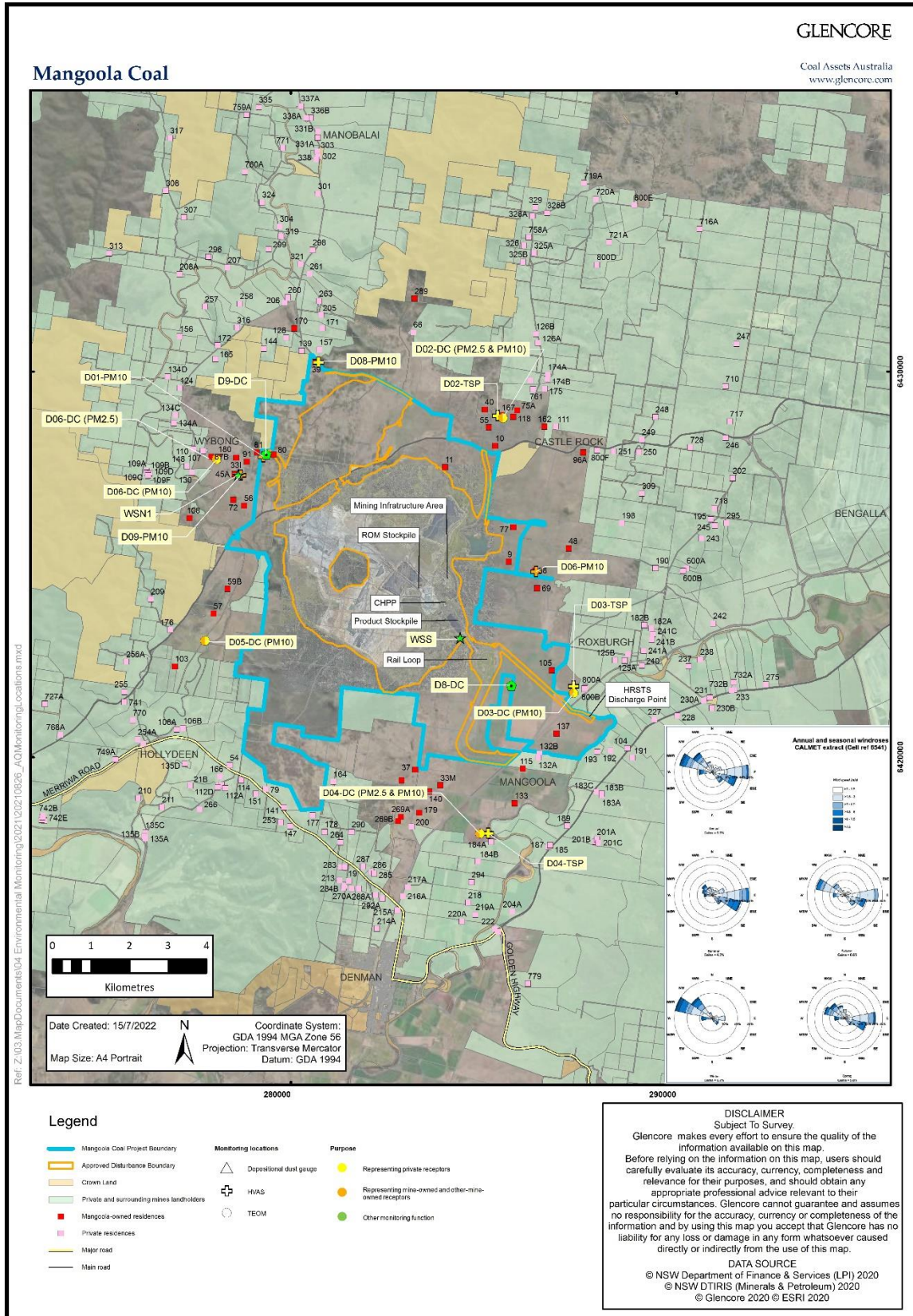


Figure 5-1 Air quality monitoring network

6. Reporting and Reviewing

6.1 Reporting

SSD 8642 and EPL 12894 reporting conditions for the Mangoola Open Cut AQGGMP are summarised in **Table 6-1**. Annual Reviews are to be made publicly available on the Project website.

Table 6-1 Reporting Conditions

Condition	Requirement	Frequency
SSD 8642 Condition D11	<p>Annual Review</p> <p>By the end of March each year after the commencement of development, or other timeframe agreed by the Planning Secretary, a report must be submitted to the Department reviewing the environmental performance of the development, to the satisfaction of the Planning Secretary. This review must:</p> <p>(a) describe the development (including any rehabilitation) that was carried out in the previous calendar, and the development that is proposed to be carried out over the current calendar year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, including a comparison of these results against the:</p> <ul style="list-style-type: none"> (i) relevant statutory requirements, limits or performance measures/criteria; (ii) requirements of any plan or program required under this consent; (iii) monitoring results of previous years; and (iv) relevant predictions in the document/s listed in condition A2I; <p>(c) identify any non-compliance or incident which occurred in the previous calendar year, and describe what actions were (or are being) taken to rectify the non-compliance and avoid reoccurrence;</p> <p>(d) evaluate and report on:</p> <ul style="list-style-type: none"> (i) the effectiveness of the noise and air quality and greenhouse gas management systems; (ii) compliance with the performance measures, criteria and operating conditions of this consent; and (iii) the status of translocated plants and vegetation quadrat data from orchid monitoring sites; <p>(e) identify any trends in the monitoring data over the life of the development;</p> <p>(f) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies.; and</p> <p>(g) describe what measures will be implemented over the next calendar year to improve the environmental performance of the development.</p>	Annually
SSD 8642 Condition B34	<p>The Applicant must:</p> <p>(c) Report on greenhouse gas monitoring and abatement measures in the Annual Review</p>	Annually
EPL 12894 Condition R1	A summary of air quality monitoring points results for the previous reporting period to be provided to the EPA within the Annual Return.	Annually

6.2 Community Complaints Response

Mangoola Open Cut will maintain a centralised location to record details of relevant external stakeholder communications. A Community Response Line (1800 014 339) will be in operation 24 hours per day, seven days a week and will be regularly advertised in a local newspaper. Complaints will be recorded and investigated. Follow up communication with the complainant will be undertaken to explain the outcome of complaint investigations where requested. Where available, complaints records will include the following details:

- The date and time of the complaint;
- The method by which the complaint was made;
- Any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- The nature of the complaint;
- The action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- if no action was taken by the licensee, the reasons why no action was taken.

Complaint records are to be kept for at least 4 years after the complaint was made.

A monthly summary of complaints will be uploaded to the website.

6.3 Performance evaluation

Mangoola Open Cut regularly evaluates the outcomes of the air quality monitoring results against the criteria listed in **Table 3-1** to evaluate the success of air quality mitigation measures. The performance of the Mangoola Open Cut in relation to air quality management will be evaluated through:

- monthly monitoring reports, which are made available on the website;
- the EPL Annual return;
- the Annual Review, including undertaking comparisons of monitoring results against the predictions made in the EIS;
- independent environmental audits; and
- engaging specialists to undertake independent investigations as required.

When an extraordinary event such as bushfires, prescribed burning, dust storms, fire incidents or any other activity, is suspected to be the cause of the exceedance of air quality criteria the DPHI will be contacted to confirm an extraordinary event has taken place and subsequent exceedance reporting required under SSD 8642 is not required.

6.3.1 Non-compliance

Mangoola will notify the Department within seven days of becoming aware of a non-compliance with conditions within SSD8642. The notification will be in writing through the Department's Major Projects Website and will identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it doesn't comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance. In accordance with SSD 8642 Condition D10 a

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

In accordance with SSD 8642 Condition C7, as soon as practicable and no longer than 7 days after obtaining monitoring results showing an exceedance of any air quality criterion, the Applicant will provide the details of the exceedance to any affected private landowners, tenants and the CCC. For any exceedance of any air quality criterion criteria listed in *Table 3-1*, Mangoola will also provide to any affected private landowners and/or tenants a copy of the fact sheet entitled “Mine Dust and You” (NSW Health, 2017).

Where land acquisition assessment criteria are exceeded and a landowner provides written request, Mangoola Open Cut will commence an independent review and the land acquisition process as outlined in *Section 3.1*.

6.3.2 Incident notification

SSD 8642 Condition D6 requires Mangoola Open Cut must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing through the Department’s Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident.

EPL 12894 requires Mangoola Open Cut or its employees to notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of the Protection of the Environment Operation Act (1997) (POEO Act). Notifications must be made by telephoning the Environment Line service on 131 555. Mangoola Open Cut must provide written details of the notification to the EPA within 7 days of the date on which they became aware of the incident.

Incidents resulting or having the potential to result in material harm to the environment (as defined by Section 147 of the POEO Act) shall be reported and may require initiation of the PIRMP.

6.4 Contingency Plan and Adaptive Management

Mangoola Open Cut implement adaptive management measures such as the following contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce levels below relevant impact assessment criteria as quickly as possible.

- Report the non-compliance or incident if required per *Sections 6.3.1 and 6.3.2*;
- Review the air quality impacts with regards to mine activities, relevant monitoring data and the impacted location;
- Investigate and identify the cause of the impact;
- Consider all reasonable and feasible options to manage the identified impacts;
- Implement the appropriate course of action to ensure that the exceedance/incident ceases and does not reoccur;
- Consider reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- Implement reasonable remediation measures as directed by the Planning Secretary.

In terms of adaptive management, the Dust Management Trigger Action Response Procedure is reviewed in consideration of the actual air quality performance of the operations and adapted as required.

6.5 Corrective Action

Table 6-2 summarises the potential air quality related issues that may arise and the appropriate corrective action to be taken.

Table 6-2 Corrective Actions

Problem	Corrective Action
Exceedance of SSD 8642 air quality criteria at any privately owned or other mine-owned residence.	<p>Investigation of exceedance, implementing reactive control measures where applicable.</p> <p>In the event of a non-compliance with conditions of SSD 8642 Mangoola will within seven days of becoming aware of a non-compliance will notify the Department of the non-compliance.</p> <p>As soon as practicable and no longer than 7 days after obtaining monitoring results showing an exceedance of any air quality criterion, the Applicant must provide the details of the exceedance to any affected landowners and the CCC.</p> <p>Provide to any affected landowners a copy of the fact sheet entitled "Mine Dust and You" (NSW Health, 2017).</p> <p>If deemed an incident, Mangoola will immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. Review this AQGGMP within 3 months of submission of incident as per SSD 8642 Condition D9.</p>
Exceedance of the applicable SSD 8642 air quality criteria at any occupied residence on Mangoola mine-owned land.	<p>Investigation of exceedance, implementing reactive control measures where applicable.</p>
Emission of odour, fume, blast dust or spontaneous combustion from site.	<p>Report emission / incident verbally immediately to DPHI compliance officer and via the EPA Environment Line</p> <p>Investigation of emission / incident, implementing reactive control measures where applicable.</p> <p>Provision of relevant monitoring data and notification of health risks associated with such exceedances to the affected resident as soon as practicable.</p> <p>Report exceedance to DPHI and EPA in writing within seven days.</p> <p>If deemed an incident, review this AQGGMP within 3 months of submission of incident as per SSD 8642 Condition D9.</p>
Community complaints.	<p>Upon receiving a complaint, Mangoola will contact the complainant to acknowledge receipt of the complaint and to discuss details of the complaint. Contact will be made in accordance with the timeframe requested by the complainant in the notification text/email.</p> <p>Investigation of complaint implementing reactive control measures where applicable.</p> <p>Assessment of impacts at the residence against air quality impact assessment criteria and land acquisition criteria, if required.</p> <p>Provide feedback to the complainant in agreed timeframe. Report complaint to senior management. Provide feedback to mine planning and production personnel, where relevant.</p> <p>Record and include in complaint reports published on the Mangoola Coal website.</p>
Landholder prevents access and has formally	<p>Report prevention of access verbally to DPHI compliance officer prior to next sampling event.</p>

Problem	Corrective Action
advised Mangoola that they no longer want monitoring to be conducted on their property.	<p>Suitably qualified air specialist to provide technical review on air quality monitoring point and need for further monitoring or relocation.</p> <p>Based on the above technical review, submit a revised AQGGMP to DPHI for approval.</p>

6.6 Records

In accordance with Condition M1.2 of EPL 12894, monitoring records will be maintained on site for at least four years.

6.7 Access to Information

In accordance SSD 8642 Condition D17, before the commencement of construction until the completion of all rehabilitation required under the consent Mangoola will make this AQGGMP available on the Mangoola website.

6.8 Auditing

Independent Environmental Audits are to be conducted within one year of commencement of the development and every three years after unless the Planning Secretary directs otherwise, in accordance with SSD 8642 Condition D13. Specific to the AQGGMP, the environmental audit requirements include a review of the adequacy of this plan and the provision of appropriate measures or actions to improve the environmental performance of the development. As outlined in Section 6.9, the AQGGMP is to be reviewed within three months of an Independent Environmental Audit.

The Independent Environmental Audit and any response to the recommendations will be made publicly available on the Mangoola website.

6.9 Plan Review

This AQGGMP must be reviewed within three months of:

- The submission of an incident report;
- The submission of an Annual Review;
- The submission of an Independent Environmental Audit;
- The approval of any modification of the conditions of SSD 8642; or
- Notification of a change in development phase (as per Condition A13 of SSD 8642).

Review of the AQGGMP is also required to either improve the environmental performance of the development or comply with a direction as per Condition A3 of SSD 8642.

If the Planning Secretary agrees, a strategy, plan or program may be staged or updated with minor administrative amendments without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent.

In accordance with Condition D8, the revised AQGGMP must be submitted to the Planning Secretary for approval within six weeks of the review. A summary of the AQGGMP review history is maintained as per the Review History contained in this AQGGMP.

The most recent version of this AQGGMP as approved by the Planning Secretary is to be implemented. The most recent approved AQGGMP is to be made publicly available on the Project website.

6.10 Document review history

Full details of the document history are recorded in the document control register, by version in **Table 6-3**.

Table 6-3 AQGGMP document history

Version	Date Reviewed	Reviewed By	Amendment
1.0	02/12/2022	Todoroski Air Sciences & Mangoola	Development of the AQGGMP document in line with SSD 8642.
2.0	2/12/2024	Mangoola Open Cut	Full review of Management Plan Revision of Section 4.7 Greenhouse Gas to align with Katestone Review

7. References

AS 3580.14 Methods for sampling and analysis of ambient air – Meteorological monitoring for ambient air quality monitoring applications.

AS/NZS 3580.10.1 Methods for Sampling and Analysis of Ambient Air – Determination of Particulate Matter – Deposited Matter – Gravimetric Method.

AS 3580.9.8 Methods for Sampling and Analysis of Ambient Air – Determination of Suspended Particulate Matter – PM₁₀ Continuous Direct Mass Method Using a Tapered Element Oscillating Microbalance Analyser.

- AS 3580.9.12 Methods for Sampling and Analysis of Ambient Air – Determination of Suspended Particulate Matter – PM_{2.5} beta attenuation monitors.

AS/NZ 3580.9.3 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – Total suspended particulate matter (TSP) – High volume sampler gravimetric method.

AS/NZS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM₁₀ high volume sampler with size-selective inlet-gravimetric method.

Katestone, NSW Coal Benchmarking Study: International Best Practice Measures to Prevent and/or Minimise Emission of Particulate Matter from Coal Mining (2011)

Mangoola Open Cut, Blast Fume Management Procedure as revised from time to time.

Mangoola Open Cut, Blast Management Plan as revised from time to time.

Mangoola Open Cut, Dust Trigger Action Response Plan as revised from time to time.

Mangoola Open Cut, Spontaneous Combustion Management Plan as revised from time to time.

Mangoola Open Cut, Environmental Management Strategy as revised from time to time.

NSW Environment Protection Authority (EPA), 2007. Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales.

NSW Environment Protection Authority (EPA), 2017. Noise Policy for Industry.

Jacobs 2019 Mangoola Coal Continued Operations Project Air Quality Impact Assessment completed for the Mangoola Coal Continued Operations Project Environmental Impact Statement

Todoroski Air Sciences 2021, Mangoola Coal Air Quality Monitoring Network Review – Mangoola Coal Continued Operations Project

Umwelt 2019 Mangoola Coal Continued Operations Project Environmental Impact Statement

Xstrata Coal, Mangoola Coal – Coal Mine Particulate Matter Control Best Management Practice Determination (2012)

Appendix A – Approvals Summary

A1 Approval Conditions

Condition	Project Approval Condition	Section of Document
Relevant Conditions of SSD 8642		
A3	<p>Consistent with the requirements in this consent, the Planning Secretary may make written directions to the Applicant in relation to:</p> <p>(a) The content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this consent, including those that are required to be, and have been, approved by the Planning Secretary; and</p> <p>(b) The implementation of any actions or measures contained in any such document referred to in condition A3(a).</p>	6.9
A22	<p>Where conditions of this consent require consultation with an identified party, the Applicant must:</p> <p>(a) consult with the relevant party prior to submitting the subject document; and</p> <p>(b) provide details of the consultation undertaken to the Department, including:</p> <p>(i) the outcome of that consultation, matters resolved and unresolved; and</p> <p>(ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.</p>	1.4.3
A24	<p>With the approval of the Planning Secretary, the Applicant may:</p> <p>(a) prepare and submit any strategy, plan or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program);</p> <p>(b) combine any strategy, plan or program required by this consent (if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined);</p> <p>(c) combine any strategy, plan, program or Annual Review required by this consent with any similar strategy, plan, program or Annual Review required under the Mangoola Coal Project (PA 06_0014); and</p> <p>(d) update any strategy, plan or program required by this consent (to ensure the strategies, plans and programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development).</p>	1.2
A25	<p>If the Planning Secretary agrees, a strategy, plan or program may be staged or updated with minor administrative amendments without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent.</p>	1.2
A30	<p>All plant and equipment used on site, or to monitor the performance of the development must be:</p> <p>(a) maintained in a proper and efficient condition; and</p> <p>(b) operated in a proper and efficient manner.</p>	4.2.1
A31	<p>The Applicant must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of the development.</p>	4.9
B26	<p>The Applicant must ensure that no offensive odours, as defined under the POEO Act, are emitted from the site.</p>	4.4

Condition	Project Approval Condition	Section of Document																
B27	<p>The Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria listed in Table 4 at any residence on privately-owned land.</p> <p>Table 4: Air quality criteria</p> <table border="1" data-bbox="331 427 1230 667"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^{a, c} 25 µg/m³</td> </tr> <tr> <td>24 hour</td> <td>^b 50 µg/m³</td> </tr> <tr> <td rowspan="2">Particulate matter < 2.5 µm (PM_{2.5})</td> <td>Annual</td> <td>^{a, c} 8 µg/m³</td> </tr> <tr> <td>24 hour</td> <td>^b 25 µg/m³</td> </tr> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^{a, c} 90 µg/m³</td> </tr> </tbody> </table> <p>Notes:</p> <ul style="list-style-type: none"> ^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources). ^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own). ^c Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Planning Secretary. 	Pollutant	Averaging period	Criterion	Particulate matter < 10 µm (PM ₁₀)	Annual	^{a, c} 25 µg/m ³	24 hour	^b 50 µg/m ³	Particulate matter < 2.5 µm (PM _{2.5})	Annual	^{a, c} 8 µg/m ³	24 hour	^b 25 µg/m ³	Total suspended particulate (TSP) matter	Annual	^{a, c} 90 µg/m ³	3 & 4
Pollutant	Averaging period	Criterion																
Particulate matter < 10 µm (PM ₁₀)	Annual	^{a, c} 25 µg/m ³																
	24 hour	^b 50 µg/m ³																
Particulate matter < 2.5 µm (PM _{2.5})	Annual	^{a, c} 8 µg/m ³																
	24 hour	^b 25 µg/m ³																
Total suspended particulate (TSP) matter	Annual	^{a, c} 90 µg/m ³																
B28	The air quality criteria in Table 4 do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to exceed the air quality criteria, and the Applicant has advised the Department in writing of the terms of this agreement.	3																
B29	<p>Mine-owned Land</p> <p>Particulate matter emissions generated by the development must not exceed the criteria listed in Table 4 at any occupied residence on mine-owned land (including land owned by another mining company) unless:</p> <ul style="list-style-type: none"> (a) the tenant and landowner (if the residence is owned by another mining company) have been notified of any health risks associated with such exceedances in accordance with the notification requirements under PART C of this consent; (b) the tenant of any land owned by the Applicant, can terminate their tenancy agreement without penalty at any time, subject to giving 14 days notice; (c) air quality monitoring is regularly undertaken to inform the tenant and landowner (if the residence is owned by another mining company) of the likely particulate matter emissions at the residence; and (d) data from this monitoring is presented to the tenant and landowner in an appropriate format for a medical practitioner to assist the tenant and landowner in making informed decisions on the health risks associated with occupying the property. 	4.3.1 & 4.3.2																

Condition	Project Approval Condition	Section of Document
B30	<p>Air Quality Operating Conditions</p> <p>The Applicant must:</p> <p>a) take all reasonable steps to:</p> <ul style="list-style-type: none"> (i) minimise odour, fume and particulate matter (including PM₁₀ and PM_{2.5}) emissions of the development, paying particular attention to minimising wheel-generated haul road emissions; (ii) manage and minimise the risk of spontaneous combustion; (iii) improve energy efficiency and reduce greenhouse gas emissions of the development; (iv) minimise visible off-site air pollution generated by the development; and (v) minimise the extent of potential dust emanating surfaces exposed on the site at any given point in time; <p>(b) ensure that all 'non-road' mobile diesel equipment used in undertaking the development includes reasonable and feasible diesel emissions reduction technology;</p> <p>(c) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this consent;</p> <p>(d) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see Note c to Table 4 above);</p> <p>(e) minimise air quality impacts of the development on air quality-affected land referred to in Table 10 and Table 11 for as long as the land remains privately-owned (i.e. until it is acquired);</p> <p>(f) make all reasonable efforts to co-ordinate air quality management on the site with the air quality management at nearby mines to minimise cumulative air quality impacts;</p> <p>(g) carry out regular air quality monitoring to determine whether the development is complying with the relevant conditions of this consent; and</p> <p>(h) regularly assess meteorological and air quality monitoring data, and modify operations on the site to ensure compliance with the relevant conditions of this consent.</p>	<p>4 & 5</p> <p>3.2</p>

Condition	Project Approval Condition	Section of Document						
B31	<p>The Applicant must prepare an Air Quality and Greenhouse Gas Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:</p> <p>(a) be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;</p> <p>(b) prepared in consultation with the CCC;</p> <p>(c) describe the measures to be implemented to ensure:</p> <ul style="list-style-type: none"> (i) compliance with the air quality criteria and operating conditions of this consent; (ii) best practice management is being employed to: <ul style="list-style-type: none"> • minimise the development's air quality impacts; • minimise the development's Scope 1 and 2 greenhouse gas emissions; and • improve the development's energy efficiency; and (iii) the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events; <p>(d) describe the air quality management system in detail; and</p> <p>(e) include an air quality monitoring program, undertaken in accordance with the Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales (DEC, 2007), that:</p> <ul style="list-style-type: none"> (i) establishes a diesel combustion emissions baseline; (ii) uses monitors to evaluate the performance of the development against the air quality criteria in this consent and to guide day to day planning of mining operations; (iii) adequately supports the air quality management system; and (iv) includes a protocol for identifying any air quality-related exceedance, incident or non-compliance and for notifying the Department and relevant stakeholders of these events. 	<p>This plan</p> <p>6.10</p> <p>1.4.3</p> <p>4</p> <p>4</p> <p>5</p> <p>2.3</p> <p>4 & 6.3</p> <p>6.3</p>						
B32	The Applicant must not commence mining operations north of Wybong Road until the Air Quality and Greenhouse Gas Management Plan is approved by the Planning Secretary.	This plan						
B33	The Applicant must implement the Air Quality and Greenhouse Gas Management Plan as approved by the Planning Secretary	1.2 & 6.9						
B34	<p>The Applicant must:</p> <p>(a) monitor the greenhouse gas generated by the Project;</p> <p>(b) investigate ways to reduce greenhouse gas emissions generated by the project; and</p> <p>(c) report on greenhouse gas monitoring and abatement measures in the Annual Review to the satisfaction of the Planning Secretary.</p>	4.7 & 6.1						
B35	<p>Prior to the commencement of construction and for the life of the development, the Applicant must ensure that there is at least one suitable meteorological station operating in the vicinity of the site that:</p> <p>(a) complies with the requirements in the Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales (DEC, 2007); and</p> <p>(b) is capable of measuring meteorological conditions in accordance with the NSW Noise Policy for Industry (EPA, 2017), unless a suitable alternative is approved by the Planning Secretary following consultation with the EPA.</p>	5						
C1	<p>Upon receiving a written request for acquisition from the owner of the privately-owned land listed in Table 10, the Applicant must acquire the land in accordance with the procedures in conditions C12 to C19, inclusive.</p> <p><i>Table 10: Land subject to acquisition upon request</i></p> <table border="1" data-bbox="320 1877 1233 2000"> <thead> <tr> <th data-bbox="320 1877 748 1910">Acquisition Basis</th> <th data-bbox="748 1877 1233 1910">Land</th> </tr> </thead> <tbody> <tr> <td data-bbox="320 1910 748 1951">Noise</td> <td data-bbox="748 1910 1233 1951">R25, R66, R110, R130, R139, R148, R205</td> </tr> <tr> <td data-bbox="320 1951 748 2000">Noise and Air Quality</td> <td data-bbox="748 1951 1233 2000">R83</td> </tr> </tbody> </table>	Acquisition Basis	Land	Noise	R25, R66, R110, R130, R139, R148, R205	Noise and Air Quality	R83	3.1
Acquisition Basis	Land							
Noise	R25, R66, R110, R130, R139, R148, R205							
Noise and Air Quality	R83							

Condition	Project Approval Condition	Section of Document				
C2	<p>Upon receiving a written request for mitigation from the owner of any residence on the privately-owned land listed in Table 10 or Table 11, the Applicant must implement additional mitigation measures at or in the vicinity of the residence in consultation with the landowner. These measures must be consistent with the measures outlined in the Voluntary Land Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Development (NSW Government, 2018). They must also be reasonable and feasible, proportionate to the level of predicted impact and directed towards reducing the noise and/or air quality impacts of the development. The Applicant must also be responsible for the reasonable, costs of ongoing maintenance of these additional mitigation measures until the cessation of mining operations.</p> <p>Table 11: Land subject to additional mitigation upon request</p> <table border="1" data-bbox="323 584 1203 692"> <thead> <tr> <th data-bbox="323 584 730 629">Mitigation Basis</th> <th data-bbox="730 584 1203 629">Land</th> </tr> </thead> <tbody> <tr> <td data-bbox="323 629 730 692">Noise</td> <td data-bbox="730 629 1203 692">R128, R144, R154, R171, R176, R193, R261, R263, R109A, R109B, R109C, R109D, R109E, R109F, R125A, R134A, R182B, R164, R177, R251, R174A, R174B</td> </tr> </tbody> </table>	Mitigation Basis	Land	Noise	R128, R144, R154, R171, R176, R193, R261, R263, R109A, R109B, R109C, R109D, R109E, R109F, R125A, R134A, R182B, R164, R177, R251, R174A, R174B	3.1
Mitigation Basis	Land					
Noise	R128, R144, R154, R171, R176, R193, R261, R263, R109A, R109B, R109C, R109D, R109E, R109F, R125A, R134A, R182B, R164, R177, R251, R174A, R174B					
C3	If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Planning Secretary for resolution.	3.1				
C4	For the life of the development, the Applicant must continue to contribute to reasonable maintenance and recurrent operating costs associated with the noise mitigation measures installed at privately-owned residences under the Mangoola Coal Project and as described in the documents listed in condition A2(c). The contribution to ongoing maintenance and recurrent operating costs must be consistent with any existing agreement between the Applicant and the relevant landowner.	3.1				
C5	<p>Within one month of the date of this consent, the Applicant must:</p> <p>(a) notify in writing the owner of:</p> <ul style="list-style-type: none"> (i) the land listed in Table 10 that they have the right to require the Applicant to acquire their land at any stage during the development; (ii) the residences on the land listed in Table 10 and Table 11 that they are entitled to ask the Applicant to install additional mitigation measures at the residence; and (iii) any privately-owned land within 3 kilometres of the approved open cut mining pit/s that they are entitled to ask the Applicant for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated; <p>(b) notify the tenants of any mine-owned land of their rights under this consent; and</p> <p>(c) send a copy of the fact sheet entitled "Mine Dust and You" (NSW Health, 2017) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the documents listed in condition A2(c) identify that dust emissions generated by the development are likely to be greater than the relevant air quality criteria identified in condition B27 at any time during the life of the development.</p>	3.1				
C6	<p>Prior to entering into any tenancy agreement for any land owned by the Applicant that is predicted to experience exceedances of the recommended dust and/or noise criteria, the Applicant must:</p> <p>(a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the fact sheet entitled "Mine Dust and You" (NSW Health, 2017); and</p> <p>(b) advise the prospective tenants of the rights they would have under this consent, to the satisfaction of the Planning Secretary.</p>	4.3.1				
C7	As soon as practicable and no longer than 7 days after obtaining monitoring results showing an exceedance of any noise, blasting or air quality criterion in PART B of this consent, the Applicant must provide the details of the exceedance to any affected landowners, tenants and the CCC.	6.5				
C8	For any exceedance of any air quality criterion in PART B of this consent, the Applicant must also provide to any affected land owners and/or tenants a copy of the fact sheet entitled "Mine Dust and You" (NSW Health, 2017).	6.5				
C9	If a landowner considers the development to be exceeding any relevant noise, blasting or air quality criterion in PART B of this consent, they may ask the Planning Secretary in writing for an independent review of the impacts of the development on their residence or land.	5.3				

Condition	Project Approval Condition	Section of Document
C10	If the Planning Secretary is not satisfied that an independent review is warranted, the Planning Secretary will notify the landowner in writing of that decision, and the reasons for that decision, within 21 days of the request for a review	5.3
C11	<p>If the Planning Secretary is satisfied that an independent review is warranted, within 3 months of the Planning Secretary's decision, or other timeframe agreed by the, Planning Secretary, the Applicant must:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Planning Secretary, to:</p> <ul style="list-style-type: none"> (i) consult with the landowner to determine their concerns; (ii) conduct monitoring to determine whether the development is complying with the relevant criteria in PART B of this consent; and (iii) if the development is not complying with the relevant criterion, identify measures that could be implemented to ensure compliance with the relevant criterion; and <p>(b) give the Planning Secretary and landowner a copy of the independent review; and</p> <p>(c) comply with any written requests made by the Planning Secretary to implement any findings of the review.</p>	5.3
C12	<p>C12. Within 3 months of receiving a written request for acquisition from a landowner with acquisition rights, the Applicant must make a binding written offer to the landowner based on:</p> <p>(a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development, having regard to the:</p> <ul style="list-style-type: none"> (i) existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and (ii) presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the additional noise and/or air quality mitigation measures in condition C2; <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> (i) relocating within the Muswellbrook local government area, or to any other local government area agreed to by the Planning Secretary; and (ii) obtaining independent legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and <p>(c) reasonable compensation for any disturbance caused by the land acquisition process.</p>	3.1
C13	If, within two months of the binding written offer being made under condition C12, the Applicant and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Planning Secretary for resolution.	3.1
C14	<p>Upon receiving a request, under condition C 13, the Planning Secretary will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:</p> <p>(a) consider submissions from both parties;</p> <p>(b) determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in condition C 12;</p> <p>(c) prepare a detailed report setting out the reasons for any determination; and</p> <p>(d) provide a copy of the report to both parties.</p>	3.1
C15	Within 14 days of receiving the independent valuer's report, the Applicant must make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.	3.1

Condition	Project Approval Condition	Section of Document
C16	However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, either party may refer the matter to the Planning Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Planning Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in condition 12, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.	3.1
C17	Within 14 days of this determination, the Applicant must make a binding written offer to the landowner to purchase the land at a price not less than the Planning Secretary's determination.	3.1
C18	If the landowner refuses to accept the Applicant's binding written offer under this condition within 6 months of the offer being made, then the Applicant's obligations to acquire the land shall cease, unless the Planning Secretary determines otherwise.	3.1
C19	The Applicant must pay all reasonable costs associated with the land acquisition process described in conditions C12 to C18 inclusive, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the: Office of the Registrar-General.	3.1
D4	<p>The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and performance measures in this consent. Any exceedance of these criteria or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.</p> <p>Where any exceedance of these criteria or performance measures has occurred, the Applicant must, at the earliest opportunity:</p> <ul style="list-style-type: none"> (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur; (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and (c) implement reasonable remediation measures as directed by the Planning Secretary. 	6.4

Condition	Project Approval Condition	Section of Document
D5	<p>Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:</p> <p>(a) summary of relevant background or baseline data;</p> <p>(b) details of:</p> <ul style="list-style-type: none"> (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); (ii) any relevant limits or performance measures and 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; <p>(c) any relevant commitments or recommendations identified in the document/s listed in condition A2(c);</p> <p>(d) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;</p> <p>(e) a program to monitor and report on the:</p> <ul style="list-style-type: none"> (i) impacts and environmental performance of the development; and (ii) effectiveness of the management measures set out pursuant to condition D4(c); <p>(f) a 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;</p> <p>(g) a program to investigate and implement ways to improve the environmental performance of the development over time;</p> <p>(h) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> (i) incident, non-compliance or exceedance of any impact assessment criterion or performance criterion; (ii) complaint; or (iii) failure to comply with other statutory requirements; <p>(i) public sources of information and data to assist stakeholders in understanding environmental impacts of the development; and</p> <p>(j) a protocol for periodic review of the plan.</p> <p><i>Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>	<p>2</p> <p>1.4</p> <p>3</p> <p>4</p> <p>4</p> <p>5 & 6.1</p> <p>6.4</p> <p>6.2 & 6.3</p> <p>6.1 & 6.9</p> <p>6.9</p>
D6	The Applicant must ensure that management plans prepared for the development are consistent with the conditions of this consent and any EPL issued for the site.	1.4 & Appendix A
D7	<p>Within three months of:</p> <p>(a) the submission of an incident report under condition D9;</p> <p>(b) the submission of an Annual Review under condition D11;</p> <p>(c) the submission of an Independent Environmental Audit under condition D12;</p> <p>(d) the approval of any modification of the conditions of this consent (unless the conditions require otherwise); or</p> <p>(e) notification of a change in development phase under conditions A13;</p> <p>the suitability of existing strategies, plans and programs required under this consent must be review by the Applicant.</p>	6.9
D8	If necessary, to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review.	6.9

Condition	Project Approval Condition	Section of Document
D9	The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing through the Department's Major Projects Website and identify the development (including the development applicant number and name) and set out the location and nature of the incident.	6.3.2
D10	<p>Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing through the Department's Major Projects Website and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it doesn't comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.</p> <p>Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.</p>	6.3.1
D11	<p>By the end of March each year after the commencement of development, or other timeframe agreed by the Planning Secretary, a report must be submitted to the Department reviewing the environmental performance of the development, to the satisfaction of the Planning Secretary. This review must:</p> <p>(a) describe the development (including any rehabilitation) that was carried out in the previous calendar, and the development that is proposed to be carried out over the current calendar year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, including a comparison of these results against the:</p> <ul style="list-style-type: none"> (i) relevant statutory requirements, limits or performance measures/criteria; (ii) requirements of any plan or program required under this consent; (iii) monitoring results of previous years; and (iv) relevant predictions in the document/s listed in condition A2(c); <p>(c) identify any non-compliance or incident which occurred in the previous calendar year, and describe what actions were (or are being) taken to rectify the non-compliance and avoid reoccurrence;</p> <p>(d) evaluate and report on:</p> <ul style="list-style-type: none"> (i) the effectiveness of the noise and air quality and greenhouse gas management systems; (ii) compliance with the performance measures, criteria and operating conditions of this consent; and (iii) the status of translocated plants and vegetation quadrat data from orchid monitoring sites; <p>(e) identify any trends in the monitoring data over the life of the development;</p> <p>(f) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies.; and</p> <p>(g) describe what measures will be implemented over the next calendar year to improve the environmental performance of the development.</p>	6.1

Condition	Project Approval Condition	Section of Document
D13	<p>Within one year of commencement of development under this consent, and every three years after, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. The audit must:</p> <p>(a) be led by a suitably qualified, experience and independent auditor whose appointment has been endorsed by the Planning Secretary;</p> <p>(b) be conducted by a suitably qualified, experienced and independent team of experts (including any expert in field/s specified by the Planning Secretary) whose appointment has been endorsed by the Planning Secretary;</p> <p>(c) be carried out in consultation with the relevant agencies and the CCC;</p> <p>(d) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent, water licences and mining leases for the development (including any assessment, strategy, plan or program required under these approvals);</p> <p>(e) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals and this consent;</p> <p>(f) recommend appropriate measures or action to improve the environmental performance of the development and any assessment, strategy, plan or program required under the abovementioned approvals and this consent; and</p> <p>(g) be conducted and reported to the satisfaction of the Planning Secretary.</p>	6.8
D16	<p>Noise, blast and/or air quality monitoring under this consent may be undertaken at suitable representative monitoring locations instead of at privately-owned residences or other locations listed in Part B, providing that these representative monitoring locations are set out in the respective management plan/s.</p>	5.2
D17	<p>Before the commencement of construction until the completion of all rehabilitation required under this consent, the Applicant must:</p> <p>(a) make the following information and documents (as they are obtained, approved or as otherwise stipulated within the conditions of this consent) publicly available on its website:</p> <ul style="list-style-type: none"> (i) the documents referred to in condition A2(c) of this consent; (ii) all current statutory approvals for the development; (iii) all approved strategies, plans and programs required under the conditions of this consent; (iv) the proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged; (v) minutes of CCC meetings; (vi) regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent; (vii) a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; (viii) a summary of the current phase and progress of the development; (ix) contact details to enquire about the development or to make a complaint; (x) a complaints register, updated monthly; (xi) the Annual Reviews of the development; (xii) audit reports prepared as part of any Independent Environmental Audit of the development and the Applicant's response to the recommendations in any audit report; (xiii) any other matter required by the Planning Secretary; and <p>(b) keep such information up to date, to the satisfaction of the Planning Secretary.</p>	6

A2 Environmental Protection Licence (EPL) 12894 Conditions

EPL Conditions		Section of Document																				
<p>P1 Location of Monitoring Points and Areas</p> <p>P1.1 The following points referred to in the table below are identified in this licence for the purposes of monitoring and / or the setting of limits for the emission of pollutants to the air from the point.</p> <p style="text-align: center;"><i>Air</i></p> <table border="1"> <thead> <tr> <th>EPA identification no.</th> <th>Type of Monitoring Point</th> <th>Type of Discharge Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>Meteorological Monitoring</td> <td></td> <td>Weather Station North (WSN) defined as "Monitoring Point 5 in plan titled "Mangoola Coal EPL 12894 - HRSTS discharge point, air quality, blast, surface water and groundwater monitoring locations" dated 21/08/2017. EPA Reference Doc17/288912-02</td> </tr> <tr> <td>18</td> <td>Meteorological Monitoring</td> <td></td> <td>Weather Station South (WSS), defined as "Monitoring Point 18 in plan titled "Mangoola Coal EPL 12894 - HRSTS discharge point, air quality, blast, surface water and groundwater monitoring locations" dated 21/08/2017. EPA Reference Doc17/288912-02</td> </tr> <tr> <td>19</td> <td>Particulate Matter Monitoring</td> <td></td> <td>Monitoring Point 19 coordinates 279920 6426993 (Easting Northing) defined as "Monitoring Point 19 in plan titled "Mangoola Coal EPL 12894 - HRSTS discharge point, air quality, blast, surface water and groundwater monitoring locations" dated 21/08/2017.</td> </tr> <tr> <td>20</td> <td>Particulate Matter Monitoring</td> <td></td> <td>Monitoring point 20 at coordinates 285715 6421858 (Easting Northing) defined as "Monitoring Point 31 in plan titled "Mangoola Coal EPL 12894 - HRSTS discharge point, air quality, blast, surface water and groundwater monitoring locations" dated 21/08/2017.</td> </tr> </tbody> </table> <p>These points are:</p> <ul style="list-style-type: none"> Point 5, meteorological monitoring at Wybong Road (Weather Station North, WSN); Point 18, meteorological monitoring south of the Coal Handling and Preparation Plant (WSS); Point 19, Dust monitoring north-west of the site; and Point 20, Dust monitoring south-east of the site; 		EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	5	Meteorological Monitoring		Weather Station North (WSN) defined as "Monitoring Point 5 in plan titled "Mangoola Coal EPL 12894 - HRSTS discharge point, air quality, blast, surface water and groundwater monitoring locations" dated 21/08/2017. EPA Reference Doc17/288912-02	18	Meteorological Monitoring		Weather Station South (WSS), defined as "Monitoring Point 18 in plan titled "Mangoola Coal EPL 12894 - HRSTS discharge point, air quality, blast, surface water and groundwater monitoring locations" dated 21/08/2017. EPA Reference Doc17/288912-02	19	Particulate Matter Monitoring		Monitoring Point 19 coordinates 279920 6426993 (Easting Northing) defined as "Monitoring Point 19 in plan titled "Mangoola Coal EPL 12894 - HRSTS discharge point, air quality, blast, surface water and groundwater monitoring locations" dated 21/08/2017.	20	Particulate Matter Monitoring		Monitoring point 20 at coordinates 285715 6421858 (Easting Northing) defined as "Monitoring Point 31 in plan titled "Mangoola Coal EPL 12894 - HRSTS discharge point, air quality, blast, surface water and groundwater monitoring locations" dated 21/08/2017.	5.2
EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description																			
5	Meteorological Monitoring		Weather Station North (WSN) defined as "Monitoring Point 5 in plan titled "Mangoola Coal EPL 12894 - HRSTS discharge point, air quality, blast, surface water and groundwater monitoring locations" dated 21/08/2017. EPA Reference Doc17/288912-02																			
18	Meteorological Monitoring		Weather Station South (WSS), defined as "Monitoring Point 18 in plan titled "Mangoola Coal EPL 12894 - HRSTS discharge point, air quality, blast, surface water and groundwater monitoring locations" dated 21/08/2017. EPA Reference Doc17/288912-02																			
19	Particulate Matter Monitoring		Monitoring Point 19 coordinates 279920 6426993 (Easting Northing) defined as "Monitoring Point 19 in plan titled "Mangoola Coal EPL 12894 - HRSTS discharge point, air quality, blast, surface water and groundwater monitoring locations" dated 21/08/2017.																			
20	Particulate Matter Monitoring		Monitoring point 20 at coordinates 285715 6421858 (Easting Northing) defined as "Monitoring Point 31 in plan titled "Mangoola Coal EPL 12894 - HRSTS discharge point, air quality, blast, surface water and groundwater monitoring locations" dated 21/08/2017.																			
<p>O2 Maintenance of plant and equipment</p> <p>O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:</p> <p>a) must be maintained in a proper and efficient condition; and</p> <p>b) must be operated in a proper and efficient manner.</p>		4.2.1																				
<p>O3 Dust</p> <p>O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.</p> <p>O3.2 Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.</p> <p>O3.3 All trafficable areas, coal storage areas and vehicle manoeuvring areas in or on the premises must be maintained, at all times, in a condition that will minimise the generation, or emissions from the premises, of wind-blown or traffic generated dust.</p>		4																				

EPL Conditions	Section of Document																																													
<p>M2 Requirement to monitor concentration of pollutants discharged</p> <p>M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:</p> <p>M2.2 Air Monitoring Requirements</p> <p>POINT 19,20</p> <table border="1" data-bbox="255 504 1232 577"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>PM10</td> <td>micrograms per cubic metre</td> <td>Continuous</td> <td>Special Method 1</td> </tr> </tbody> </table> <p>Note: Special Method 1 requires the Licensee to undertake the monitoring of PM10 concentration in strict accordance with the manufacturer's operating manual supplied with the continuous monitoring equipment and titled "E-Sampler-9800 Particulate Monitor Operation Manual Revision K", or any updated version as published by the manufacturer.</p>	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Continuous	Special Method 1	5.2																																					
Pollutant	Units of measure	Frequency	Sampling Method																																											
PM10	micrograms per cubic metre	Continuous	Special Method 1																																											
<p>M3 Testing methods – concentration limits</p> <p>M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:</p> <ol style="list-style-type: none"> any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place. <p>Note: <i>The Protection of the Environment Operations (Clean Air) Regulation 2010</i> requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".</p>	5.1																																													
<p>M4 Weather monitoring</p> <p>M4.1 For each monitoring point specified in the table below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sample method, units of measure, averaging period and sample at the frequency, specified opposite in the columns:</p> <p>Point 5 and Point 18</p> <table border="1" data-bbox="167 1339 1251 1839"> <thead> <tr> <th>Parameter</th> <th>Units of Measure</th> <th>Frequency</th> <th>Averaging Period</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Rainfall</td> <td>mm</td> <td>Continuous</td> <td>1 hour</td> <td>AM-4</td> </tr> <tr> <td>Wind speed @ 10 metres</td> <td>m/s</td> <td>Continuous</td> <td>15 minutes</td> <td>AM-2 & AM-4</td> </tr> <tr> <td>Wind direction @ 10 metres</td> <td>0</td> <td>Continuous</td> <td>15 minutes</td> <td>AM-2 & AM-4</td> </tr> <tr> <td>Temperature @ 2 metres</td> <td>0C</td> <td>Continuous</td> <td>15 minutes</td> <td>AM-4</td> </tr> <tr> <td>Temperature @ 10 metres</td> <td>0C</td> <td>Continuous</td> <td>15 minutes</td> <td>AM-4</td> </tr> <tr> <td>Sigma theta @ 10 metres</td> <td>0</td> <td>Continuous</td> <td>15 minutes</td> <td>AM-2 & AM-4</td> </tr> <tr> <td>Solar radiation</td> <td>W/m2</td> <td>Continuous</td> <td>15 minutes</td> <td>AM-4</td> </tr> <tr> <td>Additional requirements - siting - measurement</td> <td></td> <td></td> <td></td> <td>AM-2 & AM-4 AM-2 & AM-4</td> </tr> </tbody> </table>	Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method	Rainfall	mm	Continuous	1 hour	AM-4	Wind speed @ 10 metres	m/s	Continuous	15 minutes	AM-2 & AM-4	Wind direction @ 10 metres	0	Continuous	15 minutes	AM-2 & AM-4	Temperature @ 2 metres	0C	Continuous	15 minutes	AM-4	Temperature @ 10 metres	0C	Continuous	15 minutes	AM-4	Sigma theta @ 10 metres	0	Continuous	15 minutes	AM-2 & AM-4	Solar radiation	W/m2	Continuous	15 minutes	AM-4	Additional requirements - siting - measurement				AM-2 & AM-4 AM-2 & AM-4	5.2
Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method																																										
Rainfall	mm	Continuous	1 hour	AM-4																																										
Wind speed @ 10 metres	m/s	Continuous	15 minutes	AM-2 & AM-4																																										
Wind direction @ 10 metres	0	Continuous	15 minutes	AM-2 & AM-4																																										
Temperature @ 2 metres	0C	Continuous	15 minutes	AM-4																																										
Temperature @ 10 metres	0C	Continuous	15 minutes	AM-4																																										
Sigma theta @ 10 metres	0	Continuous	15 minutes	AM-2 & AM-4																																										
Solar radiation	W/m2	Continuous	15 minutes	AM-4																																										
Additional requirements - siting - measurement				AM-2 & AM-4 AM-2 & AM-4																																										

EPL Conditions	Section of Document
<p>M5 Recording of pollution complaints</p> <p>M5.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.</p> <p>M5.2 The record must include details of the following:</p> <ul style="list-style-type: none"> a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken. <p>M5.3 The record of a complaint must be kept for at least 4 years after the complaint was made.</p> <p>M5.4 The record must be produced to any authorised officer of the EPA who asks to see them.</p>	6.2
<p>M8 Other monitoring and recording conditions</p> <p>M8.5 Requirement to Monitor Particulate Matter</p> <p>The Licensee must record the average PM₁₀ concentration at Monitoring Points 19 and 20 at intervals of 10 minutes. This data must be made available upon request by any Authorised Officer of the EPA who asks to see them.</p>	5.2
<p>R2 Notification of environmental harm</p> <p>R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.</p> <p>R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which they became aware of the incident.</p> <p>Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.</p>	6.3.2


A3 MCCO Statement of Commitments

MCCO Statement of Commitments	Section of Document
Mangoola will review and update the existing Air Quality Management Plan and then implement the updated plan for the MCCO Project. The Air Quality Management Plan will detail the monitoring and management controls to be implemented to manage air quality impacts associated with the MCCO Project including ongoing implementation of the proactive and reactive management protocols in response to air quality trigger levels defined in the plan.	This document & 4
<p>Mangoola will implement a range of dust management measures for the key dust generating activities as described in Section 6.5.3 and in Appendix 9, with the key proposed controls including the following:</p> <ul style="list-style-type: none"> - minimising the area of disturbed land at any one time, in line with the approved MOP - development of a mine plan that provides for timely progressive rehabilitation - adopting controls for haul road dust emissions - review of meteorological conditions prior to blasting - consideration of meteorological conditions in planning the loading and unloading of overburden - applying water and using dust curtains when drilling overburden - minimising fall distance during loading and unloading of overburden - utilising water sprays on ROM coal stockpile areas - maintaining the existing covered conveyors and belt cleaning - maintaining and servicing machinery, exhaust systems and plant equipment in accordance with contemporary maintenance practices - using dust cameras to monitor dust - enact the TARP process and to investigate dust levels when the TARP process is enacted to identify likely sources of dust from any complaints or potential compliance issues - using temporary rehabilitation and stabilisation measures on disturbed land. 	4
<p>Mangoola will implement both proactive and reactive dust control strategies informed by real-time dust and meteorological monitoring systems. Reactive air quality management will assess the need to modify the activities in response to the following triggers:</p> <ul style="list-style-type: none"> - visual conditions, such as excessive visible dust - meteorological conditions, such as dry, strong wind conditions - ambient air quality conditions (that is, elevated short-term PM10 concentrations) 	4.2.1 & 4.2.2
<p>Proactive air quality management will involve the discussion and planning of activities in advance of potentially adverse conditions. Specifically, the proactive air quality management approach will include:</p> <ul style="list-style-type: none"> - implementation of a system to provide environmental personnel with a daily forecast of expected dust conditions in the vicinity of the operation - discussion of the dust forecast at daily operational meetings - modifying the planned mining activities, as appropriate, to minimise or avoid the potential dust impacts 	4.2.1
Specific air quality TARPs will be defined in the Air Quality Management Plan. These triggers will describe the specific actions for managing dust at both private and mine owned residences	4.2.2
A review of both real-time and attended compliance monitoring locations will be undertaken prior to the commencement of the MCCO Project and the monitoring network revised to provide adequate coverage of the MCCO Project Area in order to validate EIS predictions and monitor compliance with relevant criteria. The revised air quality monitoring program will be included in the updated Air Quality Management Plan	5.2
The proposed dust management measures for the MCCO Project will be prepared in consideration of the NSW Coal Benchmarking Study: International Best Practice Measures to Prevent and/or Minimise Emissions of Particulate Matter from Coal Mining (Katestone 2011)	4
Mangoola will implement blasting procedures relating to fume management, including a pre-blast review of weather conditions so as to avoid blasting in adverse conditions. The existing Blasting Management Plan will be updated to apply to the MCCO Project and implemented during operations, including key fume management actions, including defining the potential risk zone based upon weather patterns prior to blasting based on an assessment of real-time weather conditions	4.6
Private landholders living within a 4 km radius of the active mining area will be offered an inspection and if deemed required cleaning of residential rainwater tanks once per year. Private landholders living within a 4 - 6 km radius of active mining operations will be offered an inspection and if deemed required cleaning of residential rainwater tanks every two years, upon written request.	4.3
Mangoola will implement reasonable and feasible energy management controls as part of the Project including the management controls identified in Section 6.7.3 and Appendix 22	4.7

MCCO Statement of Commitments	Section of Document
<p>At an operational level, Mangoola will aim to improve energy efficiency and reduce greenhouse emissions from the MCCO Project via:</p> <ul style="list-style-type: none"> - limiting the length of haulage routes (where feasible) and associated fuel consumption - scheduling activities so that equipment and vehicle operation and maintenance is optimised - selecting new equipment and vehicles that have high energy efficiency 	4.7
Mangoola will report on its implementation of reasonable and feasible GHG and energy efficient measures in the Annual Review.	4.7

Appendix B – Consultation

Mangoola Air Quality and Greenhouse Gas Management Plan - CCC Consultation

 lisaandrews.ic@gmail.com
To: Undisclosed Recipient

Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

 Final DRAFT_Mangoola AQGGMP_220627 CCC.pdf
2 MB

Action Items

External sender

Please find attached the Final Draft of the Mangoola Open Cut Air Quality & Greenhouse Gas Management Plan (AQGGMP). As per Condition B31 of SSD 8642 consent, the AQGGMP must be prepared in consultation with the CCC.

Accordingly, CCC members are invited to provide input and are requested to advise of any comments by Monday 25 July 2022 to:

Sam Palmer
Environment & Community Manager
t: 0408 905 812
e: sam.palmer@glencore.com.au

OR

Annemieke Grosser
Environment and Community Officer
T: 0498 466 560
E: annemieke.grosser@glencore.com.au

Additionally, should any CCC members require a hard copy, can please email Annemieke and she can arrange this for you.

Thank you and regards

Lisa Andrews
Independent Chairperson &
Director
Articulate Solutions Pty Ltd
t: 0401 609 693
e: lisaandrews.ic@gmail.com





FW: AQGGMP Review - Mangoola

 Grosser, Annemieke (Mangoola - AU)
To: Merrick, Carla (Mangoola - AU)
Cc: Hanley, Ali (Mangoola - AU)

Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

 Air Quality and Greenhouse Gas Management Plan.docx
6 MB

Action Items

 Reply  Reply All  Forward 
Mon 25/11/2024 8:57 AM

From: Lisa Andrews <lisaandrews.ic@gmail.com>
Sent: Friday, 22 November 2024 3:42 PM
To: Undisclosed Recipients <lisaandrews.ic@gmail.com>
Subject: Fwd: AQGGMP Review - Mangoola

This message is from an external sender
This message came from outside your organization.

All

Please see email below and documentation attached, seeking comments from CCC members in relation to Mangoola's draft Air Quality and Greenhouse Gas Management Plan.

Should you require any further information, please contact the staff mentioned.

Thank you and regards
Lisa

Lisa Andrews
Independent Chairperson &
Director
Articulate Solutions Pty Ltd
t: 0401 609 693
e: lisaandrews.ic@gmail.com

The information contained in this email and attachments is confidential and may be subject to privilege and is intended for the exclusive use of the addressee. You may not disclose or use the information in the email and attachments without the prior consent of the sender. If you have received this email in error, please notify the sender and delete this email. The unauthorized use of this email may result in liability for breach of confidentiality, privilege or copyright. No warranties are provided that the email is computer virus or other defect free.

Appendix C – Authority Correspondence

Department of Planning and Environment



Our ref: SSD-8642-PA-46

Sam Palmer
Environment and Community Manager
Mangoola Coal Operations Pty Limited
PO Box 495
Muswellbrook NSW 2333

02/12/2022

Subject: Approval of Mangoola Coal Continued Operations Project Air Quality and Greenhouse Gas Management Plan

Dear Mr Palmer

I refer to your submission dated June 2022, seeking approval of the Air Quality and Greenhouse Gas Management Plan (AQGHGMP) which was submitted in accordance with Condition B31 of Schedule 2 of the Development Consent for the Mangoola Coal Continued Operations Project (version 1, dated July 2022).

The Department has carefully reviewed the document and is satisfied that it meets the requirements of the condition.

Accordingly, as nominee of the Planning Secretary, I approve the AQGHGMP (version 1 dated October 2022).

You are reminded that if there are any inconsistencies between the AQGHGMP and the conditions of approval, the conditions prevail.

Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Joe Fittell on (02) 4908 6896.

Yours sincerely

A handwritten signature in black ink, appearing to be "S O'Donoghue".

Stephen O'Donoghue
Director
Resource Assessments
As nominee of the Planning Secretary



Mr Sam Palmer
Mangoola Coal Operations Pty
PO Box 495
Muswellbrook NSW 2333

19/05/2022

Dear Mr Palmer

**Mangoola Continued Operations Project (SSD-8642)
Endorsement of Expert – Air Quality and Greenhouse Gas Management Plan**

I refer to your request dated 13 May 2022 requesting approval of suitably qualified persons to prepare the Air Quality and Greenhouse Gas Management Plan as required under condition B31 of the SSD 8642.

The Department has reviewed the nomination and information you have provided and is satisfied that Mr Aleks Todoroski is suitably qualified and experienced.

Consequently, I can advise that the Planning Secretary approves the appointment of Mr Aleks Todoroski as a suitably qualified expert for the purpose of preparing the Air Quality and Greenhouse Gas Management Plan.

Further to the above, the Department confirms that this endorsement extends to future reviews of the respective management plans. Noting that minor revisions which do not influence agreed management strategies (e.g. administrative changes) may be completed without input from the above expert.

If you wish to discuss the matter further, please contact me on (02) 4908 6896.

Yours sincerely

A handwritten signature in black ink, appearing to read "Joe Fittell".

Joe Fittell
Team Leader
Resource Assessments

As nominee of the Planning Secretary

4 Parramatta Square, 12 Darcy Street Parramatta 2150 | dpi.nsw.gov.au | 1

Department of Planning, Housing & Infrastructure



Our ref: SSD-8642-PA-85

Sam Palmer
Environment and Community Manager
Mangoola Coal Operations Pty Ltd
PO Box 495
Muswellbrook, NSW, 2333

26 March 2025

Subject: Mangoola Coal Continued Operations (SSD-8642) - Revised Air Quality and Greenhouse Gas Management Plan

Dear Mr Palmer,

I refer to your submission dated 4 November 2024, requesting approval of the revised Air Quality and Greenhouse Gas Management Plan (Version 2.0).

The Department has carefully reviewed the document and is satisfied that it meets the requirements of the relevant conditions of consent for Mangoola Coal Continued Operations Project (SSD-8642).

Accordingly, as nominee of the Planning Secretary, I approve the Air Quality and Greenhouse Gas Management Plan (Version 2.0).

You are reminded that if there are any inconsistencies between the Plan and the conditions of approval, the conditions prevail. Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Kiera Plumridge at kiera.plumridge@dpie.nsw.gov.au.

Yours sincerely,

A handwritten signature in black ink, appearing to be "S O'Donoghue".

Steve O'Donoghue
Director
Resource Assessments

As nominee of the Planning Secretary