



DARTBROOK MINE

AIR QUALITY AND GREENHOUSE GAS MANAGEMENT PLAN

for Dartbrook Operations Pty Ltd

10 March 2023

DOCUMENT CONTROL

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CONTENTS

1. INTRODUCTION	1
1.1 Background	1
1.2 Site Layout	1
1.3 Purpose	2
1.4 MANAGEMENT PLAN REQUIREMENTS	2
1.5 REGULATORY FRAMEWORK	5
1.5.1 Environmental Planning and Assessment Act	5
1.5.2 Protection of the Environment Operations Act	5
1.6 STAKEHOLDER ENGAGEMENT	6
2. CRITERIA	10
2.1 Air Quality Criteria	10
2.2 Acquisition and Mitigation Obligations	10
3. EXISTING ENVIRONMENT	12
3.1 Introduction	12
3.2 Dust Deposition	12
3.3 Dust Concentrations	12
4. IMPACT ASSESSMENT	14
4.1 Background	14
4.2 Private Receptors	14
4.3 Mod7 Mining Operations Assessment	14
4.3.1 Air Quality Assessment	15
4.3.2 Greenhouse Gas Assessment	16
5. AIR QUALITY CONTROLS	18
5.1 Introduction	18
5.2 Design Controls	18
5.3 Active Dust Control Measures	19
5.4 Management of Short-Term Dust Episodes	19
5.5 Greenhouse Gas emission Mitigation Measures	20
5.6 Offensive Odour	20
6. MONITORING PROGRAM	21
6.1 Meteorological Monitoring	21
6.2 Air Quality Monitoring	21
6.3 Greenhouse Gas Emissions	24
6.4 Quality Assurance	24
7. RESPONSE PROCEDURES	25
7.1 Landowners / Tenant Notification	25
7.2 Notification of Exceedances	26
7.3 Acquisition Procedure	26
7.4 Additional Mitigation Upon Request	27
7.5 Independent Dust Investigation Procedure	27
7.6 Incident Management	28
7.7 Complaints	29

8. REPORTING	30
8.1 Annual reporting.....	30
8.2 Incident and Non-Compliance Reporting	31
9. RESPONSIBILITIES	32
10. REVIEW REQUIREMENTS	33
11. ABBREVIATIONS	34
12. REFERENCES	36

TABLES

Table 1	Management Plan Requirements Checklist.....	2
Table 2	Development Consent Air Quality Standards/Goals	10
Table 3	Dartbrook EIS Predictions for Annual Average PM ₁₀ Concentration	13
Table 4	Predicted 24-hr Average PM ₁₀ Exceedances	16
Table 5	Maximum Estimated Greenhouse Gas Emissions.....	17
Table 6	Active Dust Control Measures.....	19
Table 7	HVAS Monitoring Sites for PM ₁₀ and TSP.....	21
Table 8	Air Quality Affected Land Subject to Acquisition Upon Request.....	27
Table 9	Responses to TARP Exceedances.....	28

FIGURES

Figure 1	Regional Locality	7
Figure 2	Dartbrook Mine Layout – East Site.....	8
Figure 3	Dartbrook Mine Layout – West Site	9
Figure 4	Dartbrook Mine Sensitive Receivers.....	11
Figure 5	Air Quality Monitoring Plan	23

APPENDICES

Appendix A	Stakeholder Consultation
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1. INTRODUCTION

1.1 BACKGROUND

Dartbrook Mine is an unincorporated Joint Venture (Dartbrook Joint Venture) between Australian Pacific Coal (AQC) and Tetra Resources Pty Ltd (Tetra). Dartbrook Operations Pty Ltd will be the appointed operating management company, and the Mine Operator under Section 5 of the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2022* (NSW). The Dartbrook Joint Venture will acquire AQC Dartbrook Management Pty Ltd ABN 62 007 377 577 (holder of Development Consent and Environment Protection Licence) and AQC Dartbrook Pty Ltd ABN 46 000 012 813 (holder of mining and coal authorities).

Dartbrook is located approximately 10 kilometres (km) north-west of Muswellbrook and 4.5 km south-west of the village of Aberdeen in New South Wales (NSW) (see **Figure 1**). Dartbrook operated as an underground longwall coal mine from 1993 until December 2006, when it was placed in care and maintenance by the previous owner, Anglo Coal (Dartbrook Management) Pty Ltd (ACDM). The mine was acquired by Australian Pacific Coal (AQC) (ASX-AQC) in 2016 and the mine has remained in care and maintenance.

Dartbrook is managed in accordance with Development Consent DA 231-7-2000 (Development Consent) granted on 28 August 2001 under the *Environmental Planning and Assessment Act 1979* (EP&A Act). DA 231-7-2000 originally allowed for underground longwall mining and associated surface activities to be carried out until 5 December 2022.

In February 2018, AQC lodged an application to modify DA 231-07-2000 (MOD7) to provide further operational options for Dartbrook (in addition to those already approved) including the recommencement of mining via limited bord and pillar methodology within the Kayuga Seam and to extend the approval period under DA 231-07-2000 by 5 years (i.e. to 5 December 2027).

DA 231-07-2000 (MOD7) was determined by the NSW Independent Planning Commission (IPCN) on 9 August 2019. The IPCN approved the proposed recommencement of mining activities but not the proposed five-year extension to the consent approval period. Without the extension to operate under DA 231-07-2000 for a further five years it was impractical to recommence mining at Dartbrook. In November 2019, an appeal was lodged against the IPCN determination of MOD7 in the NSW Land and Environment Court.

The MOD7 application was the subject of a conciliation conference conducted pursuant to Section 34 of the Land and Environment Court Act 1979 (LEC Act). AQC entered into a Section 34 agreement with the Minister for Planning and Public Spaces on 21 December 2021. This agreement gave effect to MOD7 and extended the approved duration of mining operations until 5 December 2027.

Operations at Dartbrook are proposed to commence from 1 December 2022. Recommencement will involve a re-establishment period of up to 6 months followed by a ramp up of production to produce an initial target of approximately 3 million tonnes per annum (Mtpa) of Run of Mine (ROM) coal subject to receiving post approvals which are required prior to production.

1.2 SITE LAYOUT

During care and maintenance, all mining and coal production ceased, however the mine surface infrastructure and facilities were maintained to enable recommissioning of operations in the future.

Dartbrook generally consists of the following main components:

- West Site surface facilities including workshop and maintenance facilities, administration building and underground mine portals;
- East Site surface facilities including the Coal Handling and Preparation Plant (CHPP), rail loop, train loading facilities and Rejects Emplacement Area (REA);

- Wynn Seam underground mine workings which are decommissioned and are used for tailings disposal and mine water storage;
- Kayuga Seam underground mine workings, where mining is proposed. This was the active workings up until the commencement of care and maintenance. The previously mined longwall panels in the Kayuga Seam (KA101-103) were sealed during care and maintenance; and
- Hunter Tunnel which connects the underground mine workings to the East Site surface facilities.

Figure 2 and Figure 3 shows the location of these features of Dartbrook.

1.3 PURPOSE

This Air Quality and Greenhouse Gas Management Plan (AQGGMP) has been prepared in accordance with Condition 6.1(f) of the Development Consent. This AQGGMP outlines strategies for the minimisation of dust and greenhouse gas emissions during operations at Dartbrook. The objective of the AQGGMP is to minimise dust and greenhouse gas emissions during operations. These objectives will be met through the implementation of the management strategies specified in Section 5.

1.4 MANAGEMENT PLAN REQUIREMENTS

The requirements relating to the AQGGMP are prescribed by Condition 6.1(f) under the Development Consent. These requirements are listed in Table 1, with a reference to where each specific requirement is addressed in this AQGGMP.

Table 1 Management Plan Requirements Checklist

Development Consent Condition	Reference																
6.1 Air Quality Standards/ Goals																	
<p><u>Air Quality Standards</u></p> <p>(a) 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 5 at any residence on privately-owned land.</p> <p><i>Table 5: Air quality criteria</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #cccccc;">Pollutant</th> <th style="background-color: #cccccc;">Averaging period</th> <th style="background-color: #cccccc;">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> <p><i>a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources).</i></p> <p><i>b Incremental impact (i.e. incremental increase in concentrations due to the development on its own).</i></p> <p><i>c Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Secretary.</i></p>	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	<p>Sections 5 and 7.1</p>
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															
<p>(b) The air quality criteria in Table 5 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.</p>	<p>Section 7.1</p>																

Development Consent Condition	Reference												
<p>(c) Upon receiving a written request for acquisition from the owner of the land listed in Table 6, the Applicant must acquire the land in accordance with the procedures in Conditions 11.2 (C) and (D).</p> <p><i>Table 6: Air quality affected land subject to acquisition upon request</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #cccccc;">Acquisition Basis</th> <th style="background-color: #cccccc;">Land</th> </tr> </thead> <tbody> <tr> <td rowspan="8" style="text-align: center; vertical-align: middle;">Air Quality</td> <td>Receiver 181</td> </tr> <tr> <td>Property 76</td> </tr> <tr> <td>Receiver 212*</td> </tr> <tr> <td>Receiver 228*</td> </tr> <tr> <td>Receiver 238*</td> </tr> <tr> <td>Receiver 242*</td> </tr> <tr> <td>Receiver 244*</td> </tr> <tr> <td>Receiver 374*</td> </tr> <tr> <td>Receiver 391*</td> </tr> </tbody> </table> <p><i>Notes:</i></p> <ul style="list-style-type: none"> • *The Applicant is only required to acquire this property if acquisition rights are no longer available under the development consent for the Mt Pleasant mine. • The location of the land referred to in Table 6 is shown on the figure in Appendix 4. 	Acquisition Basis	Land	Air Quality	Receiver 181	Property 76	Receiver 212*	Receiver 228*	Receiver 238*	Receiver 242*	Receiver 244*	Receiver 374*	Receiver 391*	<p>Section 7.1</p>
Acquisition Basis	Land												
Air Quality	Receiver 181												
	Property 76												
	Receiver 212*												
	Receiver 228*												
	Receiver 238*												
	Receiver 242*												
	Receiver 244*												
	Receiver 374*												
Receiver 391*													
<p>Mine Owned Land</p> <p>(d) Particulate matter emissions generated by the development must not exceed the criteria listed in Table 6 at any occupied residence on mine-owned land (including land owned by another mining company) unless:</p>	<p>Section 7.1</p>												
<p>(i) 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 this consent;</p>	<p>Section 7.1</p>												
<p>(ii) The tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice;</p>	<p>Section 7.1</p>												
<p>(iii) 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</p>	<p>Section 7.1</p>												
<p>(iv) 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</p>	<p>Section 7.1</p>												
<p>6.1 Air Quality Operating Conditions</p>													
<p>(e) The applicant must:</p>													
<p>(i) Take all reasonable and feasible steps to minimise odour, fume, greenhouse gas and dust (including PM₁₀ and PM_{2.5}) emissions of the development;</p>	<p>Section 5</p>												
<p>(ii) Minimise any visible off-site air pollution generated by the development;</p>	<p>Section 5</p>												
<p>(iii) Minimise to the greatest extent practicable, the extent of potential dust generating surfaces exposed on the site at any given point in time;</p>	<p>Section 5</p>												
<p>(iv) Ensure all ROM coal and dust-prone surfaces are watered and kept sufficiently moist to prevent or minimise emissions;</p>	<p>Section 5</p>												

Development Consent Condition		Reference
(v)	Operate an air quality management system commensurate with the risk of impact to ensure compliance with the relevant conditions of this consent;	Section 5
(vi)	Minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see Note c to Table 5 above);	Section 5.4
(vii)	Use 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;	Section 7.7
(viii)	Carry out regular air quality monitoring to determine whether the development is complying with the relevant conditions of this consent; and	Section 6.2
(ix)	Regularly assess the air quality monitoring data, and modify operations on the site to ensure compliance with the relevant conditions of this consent.	Section 5.3
6.1 Air Quality and Greenhouse Gas Management Plan		
(f)	The Applicant must, prior to the recommencement of construction or mining operations, prepare an Air Quality and Greenhouse Gas Management Plan for the development to the satisfaction of the Secretary. This plan must:	This Plan
(i)	Be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Secretary;	Section 1.6 Appendix A
(ii)	Describe the measures to be implemented to ensure: <ul style="list-style-type: none"> Compliance with the air quality criteria and operating conditions in this consent; Best practice management is being employed; and The air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events; 	Section 5
(iii)	Outline mitigation measures to be employed to minimise dust emissions including dust from rejects emplacement area in dry and windy conditions;	Section 5
(iv)	Describe the air quality management system in detail; and	This Plan
(v)	Include an air quality monitoring program that: <ul style="list-style-type: none"> 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 operations; Adequately supports the air quality management system; and Includes a protocol for identifying an air quality-related exceedance, incident or non-compliance and notifying the Department and relevant stakeholders of any such event. 	Section 6
6.1 Odour Monitoring		
(g)	The Applicant must not cause or permit the emission of offensive odours from the premises and must comply with section 129 of the <i>Protection of the Environment Operations Act 1997</i> .	Section 5.6

Development Consent Condition	Reference
(h) Prior to construction of each ventilation air discharge vent (ventilation shaft), the Applicant must submit a report to the EPA, which demonstrates, to the satisfaction of the EPA, that the new ventilation air discharge vents are located and designed in a manner that will not cause offensive odour impacts.	No new ventilation shafts are proposed.
(i) Within 90 days of commissioning each new ventilation air discharge vent (ventilation shaft), the Applicant must submit a report to the EPA, which includes the following site specific source emission test results: <ul style="list-style-type: none"> • Concentration of odour (OU/m³); • Emission rate of odour (OU/s); • Concentrations and emission rates of all other relevant air pollutants; • Volumetric flow rate (m³/s); • Discharge velocity (m/s); and • Temperature (°C). (a) If the above parameters are outside the range used in the dispersion modelling study of each ventilation air discharge vent (ventilation shaft), then the odour impacts must be assessed once more and the results submitted to the EPA.	No new ventilation shafts are proposed.
(j) The location of sampling points and source emissions sampling and analysis must be conducted strictly in accordance with the “ <i>Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales</i> ”, NSW EPA, 2007.	Noted.
6.2 DustSuppressions and Control	
(a) The Applicant must ensure the prompt and effective rehabilitation of all disturbed areas of the mine site to minimise the generation of wind erosion dust.	Section 5.3
(b) The Applicant must keep the surface of the coal stockpiles and any unsealed roads sufficiently damp to minimise the emission of wind blown or traffic generated dust.	Section 5.3

1.5 REGULATORY FRAMEWORK

1.5.1 Environmental Planning and Assessment Act

The EP&A Act prescribes the approval requirements for proposed developments in NSW. Section 4.16 of the EP&A Act states that a consent authority may grant development consent either unconditionally or subject to conditions. Dartbrook was granted Development Consent (DA 231-7-2000) under Part 4 of the EP&A Act. DA 231-7-2000 is subject to extensive conditions, including conditions that relate to the management of air quality and greenhouse gas impacts.

1.5.2 Protection of the Environment Operations Act

Section 48 of the *Protection of the Environment Operations Act 1997* (POEO Act) states that an Environmental Protection Licence (EPL) is required for the carrying out of any activity listed under Schedule 1 of the Act. “Mining for coal” is listed under Schedule 1 of the POEO Act. Accordingly, Dartbrook is managed in accordance with EPL 4885. Condition O3 of EPL 4885 outlines the dust management requirements for Dartbrook.

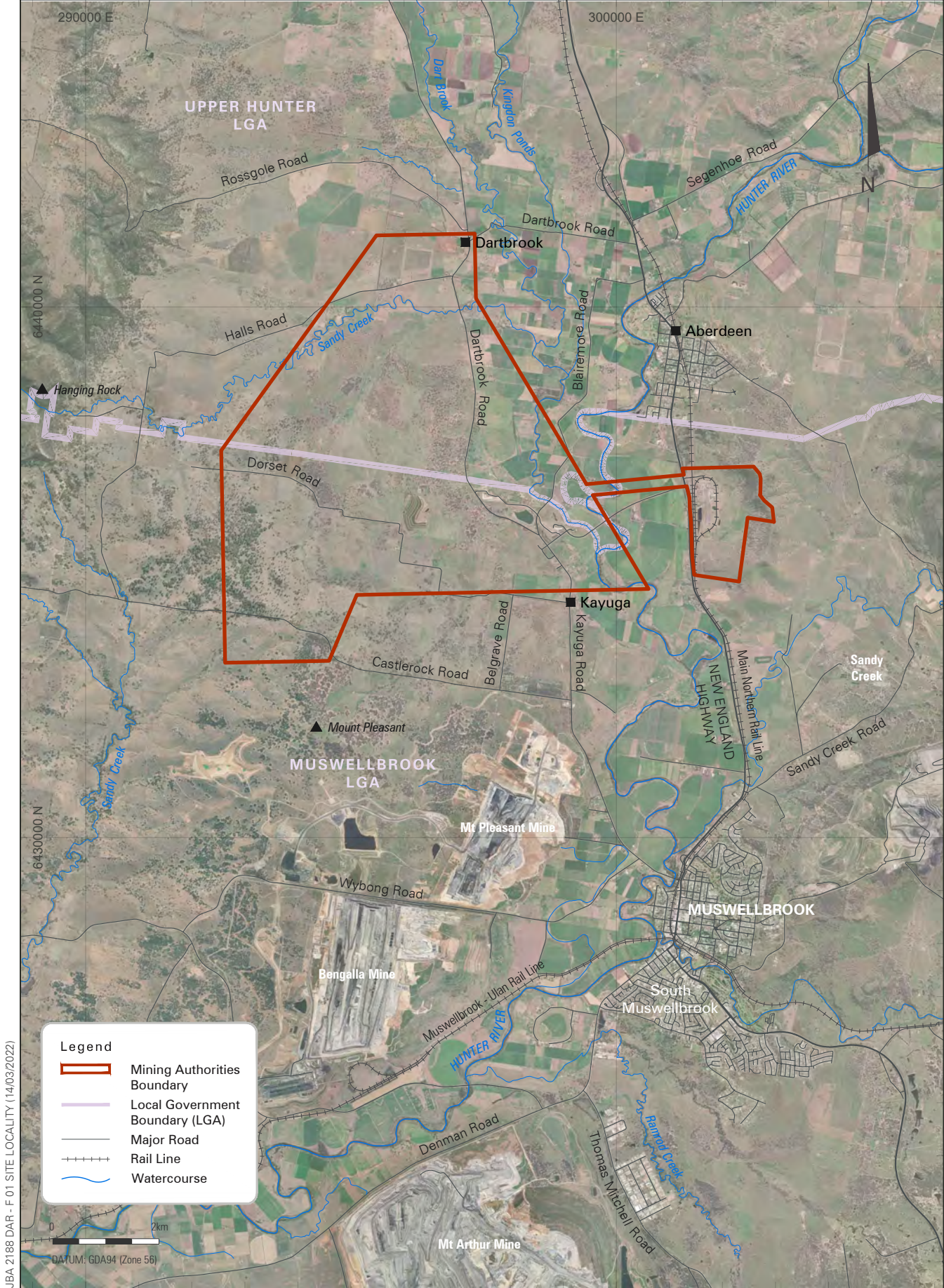
Under Condition E2 of EPL 4885, the licensee must notify the EPA’s Regional Manager, Hunter Region in writing prior to mining or handling any coal on the premises. Furthermore, the EPA have noted their intention to include

a Pollution Reduction Program requiring the licensee to conduct a site specific determination of best management practices to reduce particulate emissions from coal mining activities, if coal mining activities recommence. Best practice mitigation and management measures to reduce particulate emissions from mining activities are discussed in **Section 5**.

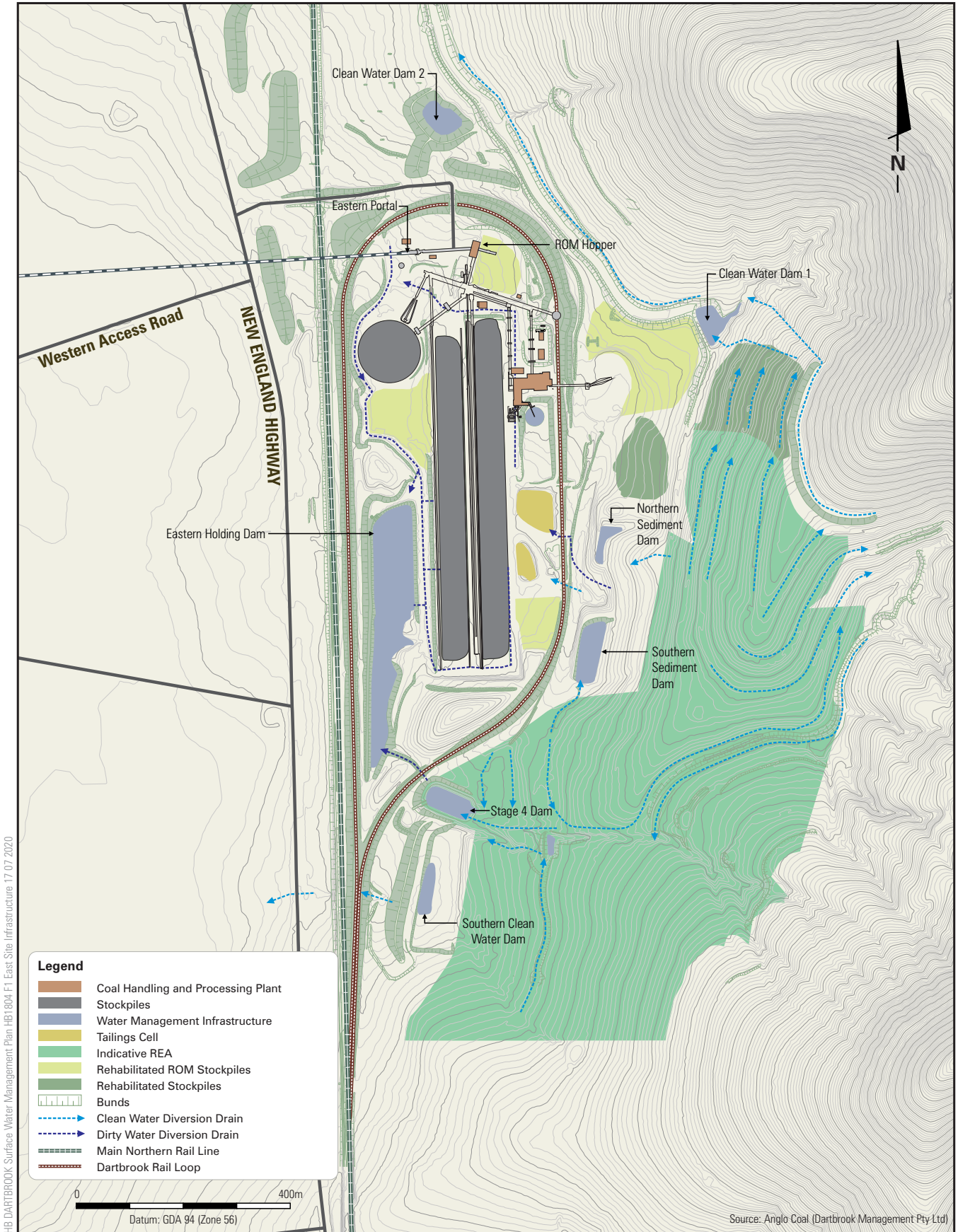
1.6 STAKEHOLDER ENGAGEMENT

Condition 6.1(f) of the Development Consent requires that the AQGGMP be prepared to the satisfaction of the Secretary of the Department of Planning and Environment (DPE). This plan was prepared by the persons endorsed by the Secretary (see letter dated 9 March 2023 in **Appendix A**).

DPE provided comments on the AQGGMP in its letter dated 27 February 2023. These comments primarily related to greenhouse gas mitigation measures for the development. **Section 5.5** has been updated to address these comments. Correspondence with DPE during the preparation of this plan is reproduced in **Appendix A**.



JBA 2188 DAR - F 01 SITE LOCALITY (14/03/2022)

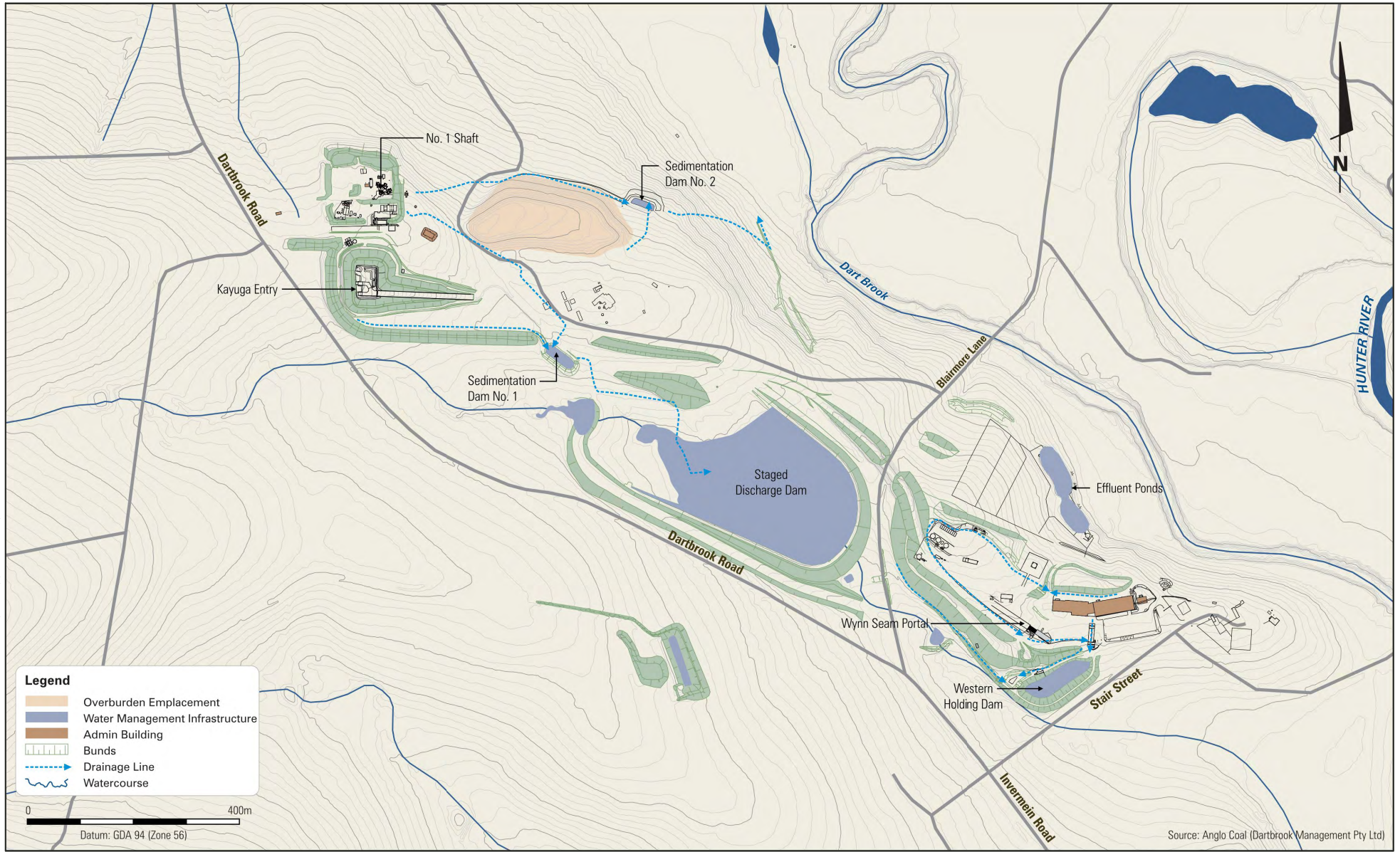


DARTBROOK MINE

Dartbrook Mine Layout - East Site

FIGURE 2

JBA 2188 DAR - F 03 EXISTING SITE LAYOUT (WEST) (25/02/2022)



DARTBROOK MINE

Dartbrook Mine Layout - West Site



FIGURE 3

2. CRITERIA

2.1 AIR QUALITY CRITERIA

Air quality criteria for Dartbrook are prescribed in Condition 6.1(a) of the Development Consent (see **Table 2**). The conditions of DA 231-07-2000 were modified through the Section 34 agreement reached in relation to MOD7 and as such the modified Development Consent does not include criteria related to depositional dust.

Table 2 Development Consent Air Quality Standards/Goals

Pollutant	Averaging Period	Basis*	Criterion
PM ₁₀	Annual	Total Impact	25 µg/m ³
	24 hour	Incremental Impact	50 µg/m ³
PM _{2.5}	Annual	Total Impact	8 µg/m ³
	24 hour	Incremental Impact	25 µg/m ³
Total Suspended Particulate	Annual	Total Impact	90 µg/m ³

* 'Incremental' refers to increase in concentrations due to the Development alone.

'Total' refers to the increase in concentrations due to the Development plus background concentrations from all other sources.

Calculations of Total concentrations exclude extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Secretary.

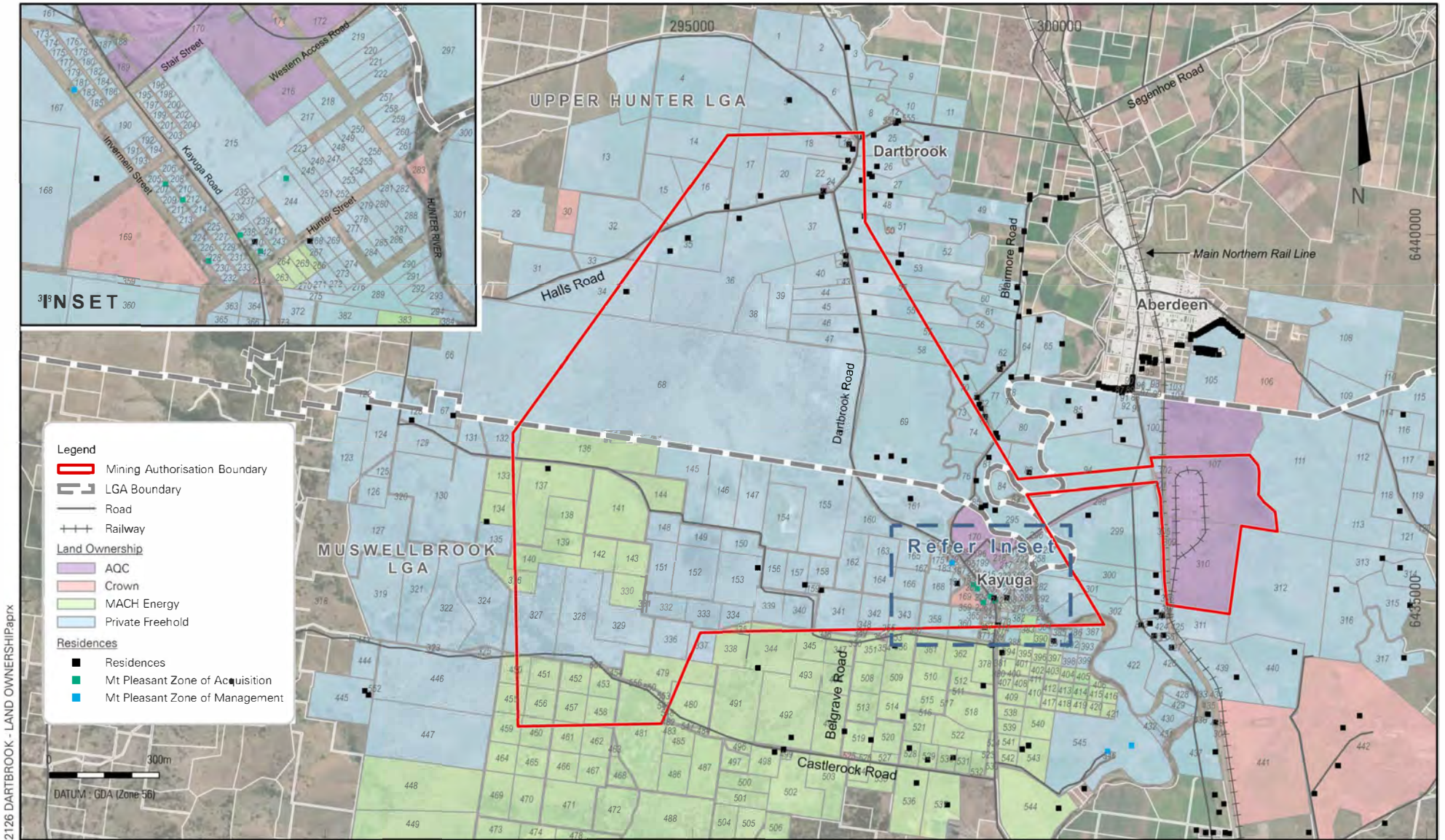
2.2 ACQUISITION AND MITIGATION OBLIGATIONS

Under Condition 6.1 (c) of the Development Consent, Tetra is required to acquire the following properties upon receiving a request from the landowner:

- Property 76 (no residences on this property);
- Receiver 181;
- Receiver 212;
- Receiver 228;
- Receiver 238,
- Receiver 242;
- Receiver 244;
- Receiver 374; and
- Receiver 391.

The locations of these properties are shown in **Figure 4**. Receivers 212, 228, 238, 242, 244, 374 and 391 are currently entitled to acquisition by MACH Energy Australia Pty Ltd (owner of the neighbouring Mount Pleasant Mine). Tetra does not have any obligation to acquire these properties unless their right to acquisition under the Mount Pleasant Mine's Development Consent (DA 92/97) is no longer available.

The procedure for acquisition is detailed in **Section 7.3**.



3. EXISTING ENVIRONMENT

3.1 INTRODUCTION

A detailed Air Quality Impact Assessment (AQIA) for the Dartbrook Extended Project was conducted by Holmes Air Sciences and is included in Appendix O of the 'Dartbrook Extended Environmental Impact Statement'

(HLA-Envirosciences, 2000) (Dartbrook EIS). Baseline air quality data for this study were obtained from ten years of monitoring data from the existing Dartbrook operations dust monitoring program. This ongoing monitoring program includes monitoring of monthly dust deposition and 24-hour total suspended particulate (TSP) matter concentrations.

Modifications to the Dartbrook Development Consent were granted to allow for the use of trucks to:

- Haul and dispose of rejects on the Dartbrook Extended REA; and
- Haul ROM coal to and from new stockpiles.

Modification applications were supported by Statements of Environmental Effects (SEEs) which contain air quality assessments of the modified operations at the East Site.

The following sections provide a summary of the dust assessments from the Dartbrook EIS and SEEs and provide proposed mitigation measures for Dartbrook operations.

3.2 DUST DEPOSITION

The EPA amenity standard for annual average dust deposition is 4 g/m²/month, and a deposition rate higher than this indicates air quality not generally suitable for residential areas (Section 2).

Historical dust deposition monitoring results for the area surrounding the Dartbrook operations are presented in the Dartbrook EIS and the SEEs. Annual average dust deposition levels in the vicinity of the mine have been below 4 g/m²/month at the majority of monitoring sites and are generally below 2 g/m²/month. Although certain dust gauges have occasionally recorded levels in excess of 4 g/m²/month, these elevated readings are known to have been caused by activities other than mining, such as earthworks and irrigation or organic contamination.

3.3 DUST CONCENTRATIONS

Historical annual average TSP monitoring results for the area surrounding the Dartbrook operations are presented in the Dartbrook EIS and the SEEs. All recorded results were below the health-based standard of 90 g/m³ specified in the Development Consent conditions (**Table 2**).

Investigations and research carried out by the NSW State Pollution Control Commission in 1986 showed that for suspended particulates from mining operations, annual average PM₁₀ concentrations can be estimated as 39% of annual average TSP concentrations. Consequently, it may be assumed that the highest average annual PM₁₀ concentration in the vicinity of Dartbrook operations would also be below the criterion of 25 g/m³ specified in the Development Consent (**Table 2**). The predicted annual average PM₁₀ concentrations from the Dartbrook EIS (and subsequent modifications) for the five High Volume Air Samplers currently located on site, is included in **Table 3**.

The Dartbrook EIS stated that the majority of 24 hour average TSP concentrations monitored in the vicinity of the Dartbrook lease over 10 years prior to the EIS were below 50 g/m³. Therefore estimated 24 hour PM₁₀ concentrations were also below the criterion of 50 g/m³.

Table 3 Dartbrook EIS Predictions for Annual Average PM₁₀ Concentration

Location	Units	EIS Predicted Annual Average PM ₁₀
East Site Meteorological Station (ESMS)	µg/m ³	20.1
Fan Site Number 1	µg/m ³	18.7
Hulbert	µg/m ³	17.4
Standings	µg/m ³	17.3
Macairstrip	µg/m ³	17.0

4. IMPACT ASSESSMENT

4.1 BACKGROUND

Sources of potential dust emissions from the Dartbrook operations addressed by this plan include:

- Wind-blown dust from Mine surface facilities area;
- Wind-blown dust from the raw and product coal stockpile and associated coal handling activities;
- Intermittent earthworks associated with the staged development of the REA at the East Site;
- Dust from utilisation of the existing East Site CHPP and train loading facilities; and
- Windblown dust from hardstand areas and roadways.

The location of these sources is shown in **Figure 2** and **Figure 3**.

4.2 PRIVATE RECEPTORS

The Dartbrook Operations are divided into two distinct areas known as the East Site and the West Site (see **Figure 2** and **Figure 3**). These two sites are approximately 3 km apart. The prevailing wind directions in the Upper Hunter Valley are along the south-east/north-west axis and consequently residences in the vicinity of each site are unlikely to be affected by dust from the other site.

Private properties in the vicinity of the East Site may potentially be impacted by dust emissions from the East Site operations. Activities include the ongoing operation of the Dartbrook CHPP; train loading facilities; reject and ROM coal haulage operations; and intermittent earthworks associated with the progressive construction and rehabilitation of the REA. The moisture content of the rejects will be approximately 35%, which will ensure that loading and dumping operations will not generate dust and that spreading of rejects will generate very little dust.

Properties in the vicinity of the West Site may potentially have been impacted by dust from the ongoing operation of the Dartbrook West Site Surface Facilities. This includes potential dust from hardstand areas and the internal mine access road.

The location of the sensitive receptors in relation to the East and West site are shown on **Figure 4**.

4.3 MOD7 MINING OPERATIONS ASSESSMENT

Under MOD7, the maximum approved production rate by bord and pillar mining is 10 Mt of ROM coal up to 5 December 2027.

An 'Air Quality Assessment' (ERM, July 2020) (AQA) for MOD7 was undertaken in accordance with the NSW Environment Protection Authority's (EPA) 'Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW' (EPA, 2016) (Approved Methods). This was included as Appendix A of the 'Modification 7 Updated Response to Contentions' (Hansen Bailey, 2021) (Contentions Report).

The AQA focused on particulate matter (Total Suspended Particulates (TSP), Particulate Matter <10 µm (PM₁₀), Particulate Matter <2.5 µm (PM_{2.5})) and deposited dust, as these are the key pollutants associated with mining development. The potential emissions due to the Modification were assessed against the criteria in the 'Approved Methods and the Voluntary Land Acquisition and Mitigation Policy' (NSW Government, 2014) (VLAMP).

The air dispersion modelling conducted for the AQA utilised advanced modelling system consisting of The Air Pollution Model (TAPM) and CALMET/CALPUFF models.

The model has accounted for emissions from all approved surface activities (including coal handling and processing, train loading and reject disposal) as well as emissions from ventilation shafts. To ensure that the worst-case impacts are assessed, the model adopted the approved maximum production rate of 6 million tonnes per annum (Mtpa) of ROM coal.

The AQA assessed both incremental and cumulative air quality impacts. The contributions from other sources were reflected in the background levels adopted for the modelling. The Mt Pleasant Mine was not operational at the time of the background monitoring. For the purposes of the cumulative air quality assessment, the contribution of the Mt Pleasant Mine to cumulative concentrations was modelled and added to the background concentration and the incremental impact of MOD7.

Best practice dust controls were identified in accordance with '*NSW Coal Benchmarking Study: International Best Practice Measures to Prevent and/or Minimise Emissions of Particulate Matter from Coal Mining*' (Donnelly et al, 2011). The proposed dust controls were incorporated into the dispersion model.

A number of dust control measures were applied across the Modification. These are taken from the *NSW Coal Benchmarking Study: International Best Practice Measures to Prevent and/or Minimise Emissions of Particulate Matter from Coal Mining* (Donnelly et al, 2011), a study that was commissioned by the EPA, referred to as "the Best Practice Report".

The dust control measures are as follows:

- Enclosure and water sprays at ROM hopper (85% control);
- Enclosure and wet suppression for crushing and screening (70% control);
- Enclosure and water sprays at washery (85% control);
- Water sprays at product stockpile (85% control);
- Water application for loading product coal to train conveyor (50% control);
- Water sprays at the ROM coal stockpile (50% control);
- Water sprays at the reject stockpile (50% control);
- Water sprays at the product coal stockpile (50% control); and
- Fencing at the Reject Emplacement Area (REA) (30% control).

It is noted that MOD7 initially included the haulage of ROM coal and usage of a hopper and shaft to transfer ROM coal from the West site to the CHPP at the East Site. This component of MOD7 was not approved and hence ROM coal will be transferred directly from the underground mine with underground conveyor system via the Hunter Tunnel. The predicted air quality impacts included in the Environmental Assessment, Modification 7, Kayuga Seam Bord and Pillar Mining Operations (Hansen Bailey, 2018) are therefore overestimated for MOD7. As such a revised Air Quality Assessment was completed for the Contentions Report. A summary of the assessment is provided in the following sections.

4.3.1 Air Quality Assessment

Total Suspended Particulates

The AQA model predicted no exceedances of the EPA or VLAMP impact assessment criteria of 90 $\mu\text{g}/\text{m}^3$ for annual average TSP concentrations either due to the Modification alone or cumulatively.

Dust Deposition

In relation to dust deposition levels, the AQA model predicted no exceedances of the incremental criterion of 2 $\text{g}/\text{m}^2/\text{month}$. The model also predicted that the cumulative criterion of 4 $\text{g}/\text{m}^2/\text{month}$ will not be exceeded at any sensitive receptors.

PM₁₀

There are no predicted exceedances of the EPA impact assessment criterion of 25 µg/m³ or the VLAMP criteria of 30 µg/m³ for the annual average PM₁₀ concentrations, either due to the Modification alone or cumulatively.

No sensitive receptors are predicted to experience 24-hour average PM₁₀ concentrations above the VLAMP criteria of 50 µg/m³ due to the Modification alone.

The only criterion that is predicted to be exceeded is the 24 hr average PM₁₀ criterion on a cumulative basis. Under existing conditions, private receivers experience some days where the background 24 hr PM₁₀ concentration is above the criterion (50 µg/m³). The model predicts that seven private receivers (29,66,67,122,128,445A & 445B) will experience one additional day above the criterion as a result of operations at Dartbrook and Mt Pleasant Mine. Table 4 of the AQA presents the contributions of the various sources on this additional day of exceedance (see **Figure 4** below). Neither the Modification nor Mount Pleasant Mine are dominant contributors to the cumulative concentration. At six of these receivers (all except Receiver 29), the sum of the background concentration and the contribution of Mount Pleasant Mine is greater than the criterion (50 µg/m³). As such, these exceedances would occur regardless of Dartbrook. Receiver 29 is the only residence where the emissions from Dartbrook result in an additional day exceeding the 24-hr average criterion.

The VLAMP criterion for 24-hour average PM₁₀ only applies to incremental impacts, not cumulative impacts. Therefore, exceedances of this criterion on a cumulative basis do not give rise to any acquisition or mitigation requirements.

Table 4 Predicted 24-hr Average PM₁₀ Exceedances

Receiver ID	Background (µg/m ³)	Mount Pleasant (µg/m ³)	Total excluding Dartbrook (µg/m ³)	Modification (µg/m ³)	Total (µg/m ³)
29	48.7	0.97	49.67	0.54	50.21
66	48.7	1.92	50.62	0.07	50.69
67	48.7	3.16	51.86	0.03	51.88
122	48.7	3.34	52.04	0.01	52.05
128	48.7	3.35	52.05	0.02	52.07
445A	48.7	5.36	54.06	0.01	54.06
445B	48.7	5.20	53.90	0.01	53.90

PM_{2.5}

In relation to annual average PM_{2.5} concentrations, there are no predicted exceedances of the EPA impact assessment criterion of 8 µg/m³ due to the Modification alone or cumulatively. No sensitive receptors are predicted to experience 24 hour average PM_{2.5} concentrations above the EPA impact assessment criterion of 25 µg/m³, either due to the Modification alone or cumulatively.

The VLAMP does not include any criteria for PM_{2.5} concentrations. Therefore, the predicted PM_{2.5} concentrations do not give rise to any acquisition or mitigation obligations.

4.3.2 Greenhouse Gas Assessment

Scope 1 and 2 greenhouse gas (GHG) emissions may occur through fugitive emissions, electricity use and fuel combustion. GHG emissions were estimated over the life of MOD7 and included in Appendix A of the Contentions Report. **Table 5** includes the potential maximum GHG emissions associated with MOD7, which were estimated based on previously reported GHG emissions. This was calculated for an indicative mining schedule at the maximum approved rate of 6 Mtpa of ROM coal per annum including up to 10 Mt of ROM Coal by bord and pillar mining over a 7 year period. The maximum annual production rate does not exceed 6 Mtpa.

The emissions predicted to occur within the MOD7 mining period are:

- Total of 1,097,006 t CO₂-e or an annual average of 156,715 t CO₂-e of Scope 1 emissions;
- Total of 503,644 t CO₂-e or an annual average 71,949 t CO₂-e of Scope 2 emissions; and
- Total of 113,825,161 t CO₂-e or an annual average of 16,260,738 t CO₂-e of Scope 3 emissions.

In the 2017/18 and 2018/19 financial years, Dartbrook reported GHG emissions of 89,453 t CO₂-e and 99,883 t CO₂-e, respectively. These values are representative of fugitive emissions during care and maintenance. As such, a large component of the fugitive emissions is likely to occur in the absence of active mining.

Table 5 Maximum Estimated Greenhouse Gas Emissions

Year	Bord & Pillar Max ROM Coal (Mtpa)*	Longwall Max ROM Coal (Mtpa)*	Scope 1 Emissions (t CO ₂ -e)			Scope 2 Emissions (t CO ₂ -e)	Scope 3 Emissions (t CO ₂ -e)
			Diesel	Fugitive Methane	Total	Electricity	Energy Production
2021	1.4	Nil	3,579	120,743	124,322	36,022	5,612,549
2022	1.4	6	4,866	131,173	136,039	77,937	18,035,436
2023	1.4	6	4,866	141,603	146,469	77,937	18,035,436
2024	1.4	6	4,866	152,033	156,899	77,937	18,035,436
2025	1.4	6	4,866	162,463	167,329	77,937	18,035,436
2026	1.4	6	4,866	172,893	177,759	77,937	18,035,436
2027	1.4	6	4,866	183,323	188,189	77,937	18,035,436
Total	*10.0	36.0	32,775	1,064,231	1,097,006	503,644	113,825,161
Annual Average					156,715	71,949	16,260,738

* ROM Coal production will not exceed 6 Mtpa in total

5. AIR QUALITY CONTROLS

5.1 INTRODUCTION

Best practice dust controls were identified in accordance with '*NSW Coal Benchmarking Study: International Best Practice Measures to Prevent and/or Minimise Emissions of Particulate Matter from Coal Mining*' (Donnelly et al, 2011) and incorporated into the AQA completed for MOD7 (as discussed in **Section 4.3**). The air quality management system for Dartbrook operations consists of a combination of design controls as well as both active and reactive control measures.

Design controls are aimed at minimising air quality impacts through considered mine design and planning. Active control measures have been designed to minimise the generation of wind-blown dust from any bare surfaces and the generation of dust from rural and drilling activities. Active dust control measures are discussed in **Section 5.3**. Reactive control measures have been designed to enable effective control of any episodic dust events which may occur. Specific details of the proposed reactive management strategies are provided in **Section 5.4**.

5.2 DESIGN CONTROLS

Dartbrook has a number of mitigation and management measures incorporated into the mine design for Dartbrook to minimise air quality emissions, including greenhouse gas (GHG) emissions. These measures include design controls such as:

- ROM coal transfer from the underground mine area to the East Site via the underground conveyor system in the Hunter Tunnel;
- Minimising the area disturbed in the REA, followed by timely progressive rehabilitation;
- Minimising the area of disturbed land at any one time as much as practicable;
- Minimising the length of haul roads for coal handling at the CHPP;
- Maintaining sealed access roads;
- Maintaining the main haul roads at the CHPP with compacted gravel;
- Using temporary rehabilitation and stabilisation measures on disturbed land;
- Maintain and improve the fuel efficiency of light vehicles, mining equipment and haul trucks operating at the mine to reduce diesel usage and the associated emissions (including GHG's);
- Reduce idle time of plant and equipment to reduce emissions;
- Servicing and maintenance of plant and equipment in accordance with maintenance contracts and adopting original equipment manufacturer recommendations for maintenance;
- Targeting the maintenance to ensure equipment remains fit for purpose over its whole life cycle;
- Retention of buffer land and/or mine-owned lands surround the surface facilities as farm/ grazing land; and
- Ensuring all employees and contractors complete air quality management and awareness training as part of site inductions.

5.3 ACTIVE DUST CONTROL MEASURES

The active dust control measures and proposed for the Dartbrook operations are listed in **Table 6**.

Dartbrook will have a water cart available on-site at all times for dust suppression spraying of roads and work areas. During any periods of peak dust-generating activity, additional water carts will be made available on site, as necessary. Vehicle speeds will also be limited to 30 km/h on unsealed roads and 50 km/h on sealed roads.

The rejects deposited within the REA are not a potential significant dust source as they will maintain a relatively high moisture content. There are therefore no additional specific dust control measures required for the deposited rejects.

To ensure that fugitive dust emissions associated with coal transportation are kept to a minimum, Tetra is committed to implementing best practice load profiling at the train load-out facility. In addition, water sprays will be used on the coal stockpiles and at all transfer points between the stockpiles and the train load-out.

Table 6 Active Dust Control Measures

Source	Control Measures
CHPP Area	Existing conveyors are shielded and automatic sprays are fitted at transfer points. Trafficable areas will be sprayed by water cart in the event of visible dust generation.
ROM Stockpiles and associated Coal Handling Activities	The stockpile areas will be sprayed by existing sprinklers system or water cart in the event of visible dust generation. The high inherent moisture content of the ROM coal will minimise the potential for dust generation.
REA and minor surface infrastructure construction areas.	The minimum area necessary for construction and emplacement will be disturbed. Construction and haulage tracks will be kept moist when in use. Other disturbed areas will be sprayed by water cart in the event of visible dust generation. All disturbed areas will be rehabilitated as soon as practicable.
Haulage of Rejects to REA	Haulage roads and tracks will be kept moist when in use.
CHPP Coal Stockpile Areas	CHPP stockpiles have automatic sprinklers that operate when wind speed exceeds 6 m/s.
West Site Hardstand Areas & Mine Access Road	Hardstand areas and trafficable areas will be sprayed by water cart in the event of visible dust generation.
REA Topsoil and Clay Stockpiles	Long-term stockpiles will be revegetated with quick establishing cover crops and grass.

5.4 MANAGEMENT OF SHORT-TERM DUST EPISODES

Problem episodic dust events due to Dartbrook operations have not occurred in the past, whilst mining and are not expected to occur in future with the proposed bord and pillar mining.

Response procedures will be activated by a community complaint or a short-term dust event resulting in adverse dust impacts at a neighbouring property. The knowledge of short-term dust problems normally arises from three sources:

- Review of prevailing dust and weather conditions by the Dartbrook Environmental Officer;
- Visual observations from plant operators or other mine personnel; and
- Community complaints from neighbouring landholders who contact the mine when a perception of high levels of dust exists.

Dartbrook maintains a 24 hour response line. All dust complaints are managed in accordance with the Dartbrook Complaints Handling Protocol, as discussed in **Section 7.1**.

5.5 GREENHOUSE GAS EMISSION MITIGATION MEASURES

Dartbrook Operations has developed an environmental, social and governance (ESG) strategy for the Dartbrook Mine, which proposes the following measures:

- Scheduling activities so that equipment operation is optimised to reduce energy usage and associated emissions;
- Selecting optimal plant and equipment as well as optimising haul roads routes to minimise coal and reject material handling, resulting in reduced diesel consumption;
- Optimisation of mine ventilation systems;
- Investigation into the active use of mine waste gas for electricity generation or flaring;
- Use of high efficiency lighting, heating and cooling systems on site where practical, e.g., Switching to energy-efficient LED lighting;
- Investigation into the use of alternate low emission fuels such as B2 biodiesel;
- Monitoring of fuel usage;
- Investigation into replacing diesel vehicles with more energy efficient electric vehicles;
- Sourcing electricity from renewable resources where available, and economically reasonable and feasible; and
- Reducing waste sent to landfill through recycling and reuse.

Dartbrook Operations are also proposing to utilise an automated and remote underground mining technology, Penetrated Block Extraction (PBE), to recover coal (subject to obtaining the necessary approvals). When implemented, the PBE process is an electric-powered, highly productive mining methodology that is able to selectively mine within a seam to maximise yield and recoveries with reduced and limited manning requirements with minimal operating equipment. The process also utilises inertisation equipment.

5.6 OFFENSIVE ODOUR

In accordance with Condition 6.1 Odour Monitoring (g) of the Development Consent and Section 129 of the *Protection of Environment Operations Act 1997* (POEO Act), Dartbrook will ensure no offensive odours are emitted from site.

A Spontaneous Combustion Management Plan (SCMP) will be prepared to the satisfaction of the Resources Regulator, in accordance with Condition 2.2 of the Development Consent. The SCMP will describe the measures to be implemented to prevent, detect and control spontaneous combustion. Such measures include:

- Minimising stockpile duration and processing of coal and rejects material for its end use before the oxidation reaction that leads to spontaneous combustion occurs;
- Monitoring the temperature of the REA via thermocouples to ensure there are not hotspots or heating occurring in the rejects material;
- Capping rejects material with a layer of inert material prior to topsoil and rehabilitation;
- Routine monitoring and inspections of stockpiles and the REA for any early signs of spontaneous combustion; and
- Use of an inertisation process in the underground workings, where required, to minimise the risk of spontaneous combustion.

6. MONITORING PROGRAM

6.1 METEOROLOGICAL MONITORING

Dartbrook has two operating meteorological stations, including:

- Met-01 which is located above the Kayuga underground mine area to the north-west of the West Site facilities; and
- Met-02, which is located north of the CHPP at the East site.

The locations of the meteorological stations are shown on **Figure 5**.

Both meteorological Stations are maintained and operated in accordance with the requirements of *Approved Methods for Sampling and Analysis of Air Pollutants in NSW* (Department of Environment and Conservation (DEC), 2007), in accordance with Development Condition 8.2 (a) of the Development Consent.

Both meteorological monitoring sites are operated via real-time telemetry to assist with accurate data acquisition.

Meteorological data will be analysed and documented on a monthly basis to characterise the site meteorological conditions. Data will be summarised in the Annual Review, as discussed in **Section 8.1**.

6.2 AIR QUALITY MONITORING

Dartbrook has an established and ongoing air quality monitoring program. Monitoring has been undertaken throughout the life of Dartbrook, including the previous care and maintenance phase.

The aim of the monitoring program is to confirm the compliance status of Dartbrook operations in relation to the dust standards/goals specified in **Table 2** and for internal management purposes.

The air quality monitoring network includes 17 Dust Deposition Gauges and five High Volume Air Samplers measuring PM₁₀ (HVASs). The locations of these monitoring sites are shown on **Figure 5**. However, not all of these monitoring locations are included as compliance monitoring locations as required by the Development Consent. The compliance monitoring network consists of the following components:

- Two PM₁₀ HVASs:
 - One monitor, Hubert, which is located to the south of the CHPP; and
 - One monitor, Macairstrip, which is in a location representative of private residences to the south of the West Site.

Table 7 HVAS Monitoring Sites for PM₁₀ and TSP

HVAS Site	Location
East Site Meteorological Station (ESMS) [^]	East Site, north of the CHPP
Fan Site Number 1 [^]	West Site, adjacent to the ventilation fan
Hulbert*	East Site, south-south-west of the CHPP
Standings*	West Site, south of the surface infrastructure
Macairstrip [^]	West Site, centre of the Mining Leases

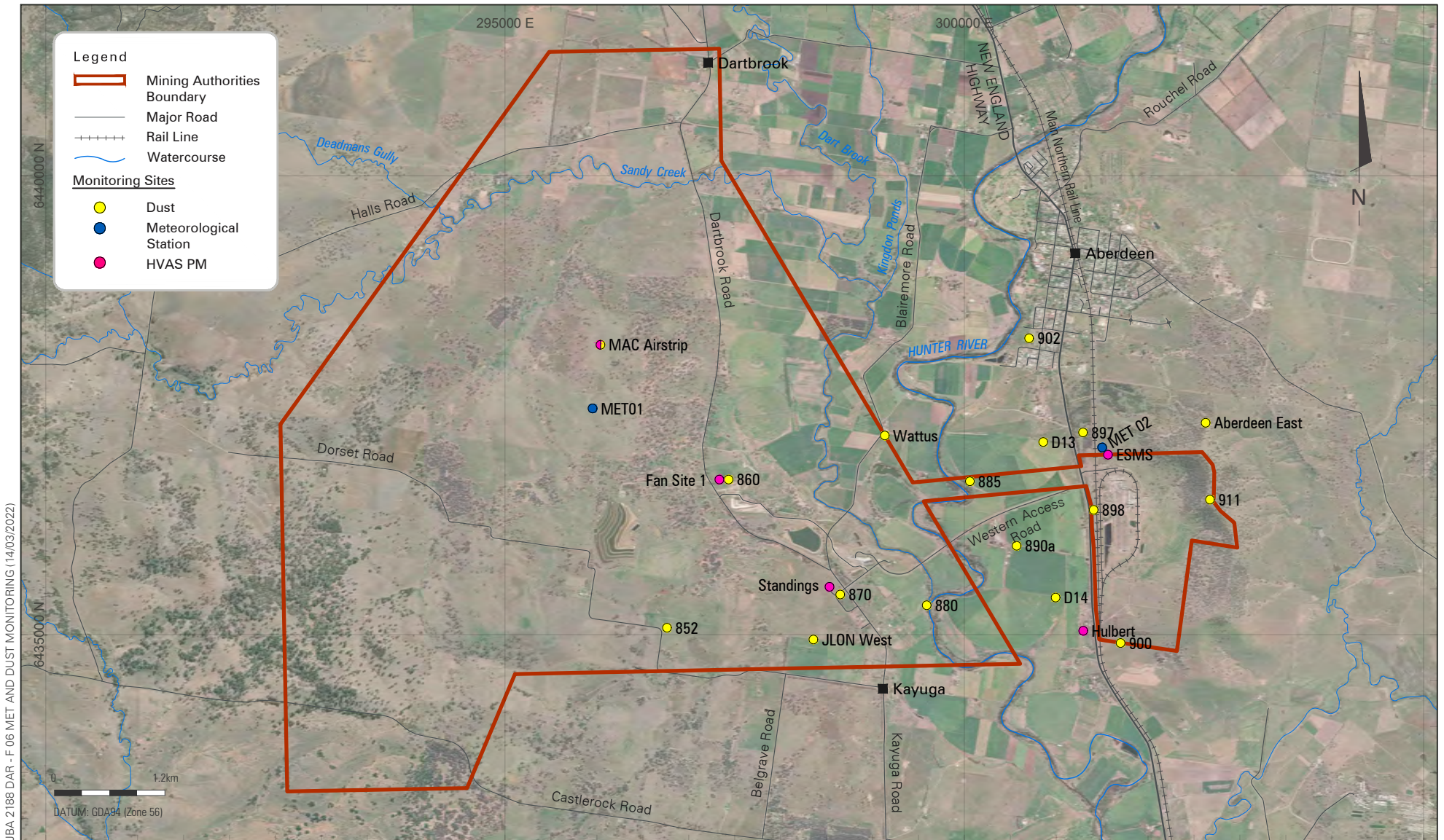
* Representative of Private Receiver

[^] Internal Management Site

Dust deposition gauges are sampled monthly in accordance with Australian Standard AS3580-1991.

Data from the PM₁₀ HVAASs are collected on the EPA approved 6 day cycle (24 hour average measured every 6th day). Where samples are not captured due to programming or other technical issues with the monitors, a program re-run will be undertaken to capture missing data. Sample analyses are carried out in accordance with the relevant Australian Standards.

PM₁₀ monitoring data are be used to estimate annual average TSP levels. Monitored annual average PM₁₀ levels will be approximately 40% of annual average TSP levels.



JBA 2188 DAR - F 06 MET AND DUST MONITORING (14/03/2022)

DARTBROOK MINE

Air Quality Monitoring Plan



FIGURE 5

6.3 GREENHOUSE GAS EMISSIONS

The Commonwealth *National Greenhouse and Energy Reporting Act 2007* (the NGER Act) establishes a mandatory obligation on corporations who exceed GHG emission, energy consumption and energy production thresholds. NGER Act facility reporting threshold per financial year for GHG emissions (scope 1 & 2) is 25,000 tonnes tCO₂-e.

Scope 1 emissions at Dartbrook occur from underground fugitive emissions (split into methane and carbon dioxide); or use of diesel, petrol, LPG, oils and greases. Scope 2 emissions are those from the use of electricity on site.

Once operational, the Scope 1 and Scope 2 emissions are anticipated to exceed the threshold for Dartbrook and therefore Dartbrook will be required to monitor and report emissions under the National Greenhouse Energy Reporting System (NGERs).

The majority of gas from the underground mine workings is managed by mine ventilation and released through an upcast shaft. During operations, methane (CH₄) and carbon dioxide (CO₂) will be vented to the atmosphere via Ventilation Shaft No. 1. All gas drainage boreholes previously used to extract gas from the mine goaf have been closed.

Dartbrook will monitor and measure underground fugitive emission via tube bundles and the underground ventilation system. Data will also be collected for:

- Fuel consumption including diesel, petrol, oils, greases and lubricants;
- Waste disposed to landfill; and
- Electricity usage.

An annual NGER report will be prepared, which will include:

- Energy Usage;
- Energy Production; and
- Greenhouse Gas Emissions.

Monitoring and reporting of GHG emissions under the NGERs will be undertaken in accordance with the methods and criteria in the Commonwealth National Greenhouse and Energy Reporting (Measurement) Determination 2008.

6.4 QUALITY ASSURANCE

Sampling and analysis will be undertaken by a suitably qualified and experienced person with best practice standards of diligence, care and efficiency. All aspects of monitoring including collection, sampling, transport, analysis and reporting will be subject to a Quality Control System.

The Quality system will:

- Satisfy the International Standard ISO 9001 'Quality Management Systems – Requirements';
- Generally meet the requirements of AS/NZS ISO 14001:2004, and
- Use a NATA accredited laboratory for the analysis of samples.

All dust monitoring equipment will conform to relevant Australian Standards and will be of a type approved by EPA. Sampling and analysis procedures will be conducted in accordance with relevant Australian Standards, including *'Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales'* (DEC, 2007).

7. RESPONSE PROCEDURES

7.1 LANDOWNERS / TENANT NOTIFICATION

Particulate matter emissions generated by the development must not exceed the criteria listed in **Table 2** at any occupied residence on mine-owned land (including land owned by another mining company) unless:

- (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 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 reasonable 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.*

In accordance with Condition 11.2 (f):

- (a) *Within one month of the approval of Modification 7, Tetra will:*
 - (i) *Notify in writing the owner of:*
 - *The land listed in Section 2.2 that they have the right to require Tetra to acquire their land at any stage during the development; and*
 - *The residences on the land listed in Section 2.2 that they are also entitled to ask Tetra to install additional mitigation measures at the residence, as outlined in Condition 11.2(E) of the Development Consent;*
 - (ii) *Notify the tenants of any mine-owned land of their rights under this consent; and*
 - (iii) *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 mineowned land) where the predictions identify that dust emissions generated by Dartbrook operations are likely to be greater than the relevant air quality criteria identified in Table 2 at any time during the life of the development.*
- (b) *Prior to entering into any tenancy agreement for any land owned by Tetra that is predicted to experience exceedances of the recommended dust and/or noise criteria, Tetra will:*
 - (i) *Advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled 'Mine Dust and You' (NSW Health, 2017); and*
 - (ii) *Advise the prospective tenants of the rights they would have under the Development Consent, to the satisfaction of the Secretary of DPE.*

7.2 NOTIFICATION OF EXCEEDANCES

In accordance with Condition 11.2 Notification of Exceedance:

- (a) *As soon as practicable and no longer than 7 days after obtaining monitoring results showing an exceedance of any air quality criterion in Table 2, Tetra will:*
 - (i) *Provide to any affected landowners and tenants; and*
 - (ii) *Publish on the Dartbrook Website, the full details of the exceedance.*
- (b) *For any exceedance of any air quality criterion in Table 2, Tetra will also provide to any affected landowners and tenants copy of the NSW Health fact sheet entitled 'Mine Dust and You' (NSW Health, 2017).*

7.3 ACQUISITION PROCEDURE

In accordance with Condition 11.2 (c):

- (a) *Upon receipt of a written request to purchase property in accordance with any part of conditions 6.1(c) and 11.2 of the Development Consent, Tetra will offer in writing to acquire the whole of the property (unless the request specifically requests acquisition of only part of the property and subdivision has already been approved) within six months of receipt of the request. Tetra will pay the landowner an acquisition price resulting from proper consideration of:*
 - (i) *A sum not less than the current market value of the owner's interest in the land at the date of this consent, as if the land was unaffected by Dartbrook Mine, having regard to:*
 - *The existing use and permissible use of the land in accordance with the applicable planning instruments at the date of the written request; and*
 - *The presence of improvements on the land and/or any Council approved building or structure which although substantially commenced at the date of the request is completed subsequent to that date.*
 - (ii) *The owner's reasonable compensation for disturbance allowance and relocation within the Singleton, Upper Hunter or Muswellbrook Local Government Areas, or within such other location as may be determined by the Secretary in exceptional circumstances;*
 - (iii) *The owner's reasonable costs for obtaining legal advice and expert witnesses for the purposes of determining the acquisition price for the land and the terms upon which it is to be acquired; and*
 - (iv) *The purchase price determined by reference to points (i), (ii) and (iii) shall be reduced by the amount of any compensation awarded to a landowner pursuant to the Mining Act, 1992 or other legislation providing for compensation in relation to coal mining but limited to compensation for dwellings, structures and other fixed improvements on the land, unless otherwise determined by the Secretary in consultation with the Resources Regulator or SA NSW.*
- (b) *An offer by Tetra to purchase a property under the conditions of this consent must remain open to the landowner for the following periods from the date of the offer:*
 - (i) *For damage to a dwelling beyond the safe, serviceable and repairable criteria (Condition 11.2(a)), three years after completion of mining of longwall panels that affect the property;*

- (ii) For land capability and/or agricultural productivity impacts (Condition 11.2(b)), five years after completion of mining of longwall panels that affect the property; and
 - (iii) For land listed in Section 2.2, for the life of the development.
- (c) Notwithstanding any other Condition of the consent, the landowner and Tetra may enter into any other agreed arrangement regarding compensation; or Tetra may, upon request of the landowner, acquire any property affected by the project during the course of this consent on terms agreed to between Tetra and the landowner.

7.4 ADDITIONAL MITIGATION UPON REQUEST

As outlined in Condition 11.2 (E), upon receiving a written request for mitigation from the owner of any residence on the land listed in **Table 8**, Tetra 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* (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. Tetra will also be responsible for the reasonable costs of ongoing maintenance of these additional mitigation measures until the cessation of mining operations.

If within 3 months of receiving this request from the owner, Tetra 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 Secretary for resolution.

Table 8 Air Quality Affected Land Subject to Acquisition Upon Request

Acquisition Basis	Land
Air Quality	Receiver 181
	Property 76
	Receiver 212
	Receiver 228
	Receiver 238
	Receiver 242
	Receiver 244
	Receiver 374
	Receiver 391

7.5 INDEPENDENT DUST INVESTIGATION PROCEDURE

The Independent Dust Investigation process is set out in Development Consent Condition 11.2 under the heading 'Independent Review'. The process will be triggered when a landowner/ occupier considers that dust from the Dartbrook operations is exceeding the dust criteria and submits a written request, the DPE must also be satisfied that an investigation is required.

The key steps in the process are described under Condition 11.2 as follows:

- (a) If a landowner considers the development to be exceeding any air quality or noise relevant criterion, they may ask the Secretary in writing for an independent review of the impacts of the development on their residence or land.

- (b) *If the Secretary is not satisfied that an independent review is warranted, the 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.*
- (c) *If the Secretary is satisfied that an independent review is warranted, within 3 months, or other timeframe agreed by the Secretary and the landowner, of the Secretary's decision, Tetra will:*
- (i) *Commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:*
 - *Consult with the landowner to determine their concerns;*
 - *Conduct monitoring to determine whether the development is complying with the relevant criteria in condition 6.1 (a); and*
 - *If the development is not complying with the relevant criterion, identify measures that could be implemented to ensure compliance with the relevant criterion; and*
 - (ii) *Give the Secretary and landowner a copy of the independent review; and*
 - (iii) *Comply with any written requests made by the Secretary to implement any findings of the review.*

7.6 INCIDENT MANAGEMENT

Incidents are a set of circumstances that have caused, or have the potential to cause, significant risk of material harm to either human-health or the environment, and/or breaches of performance measures/criteria in the consent. Examples of incidents are uncontrolled dust generation on haul roads and hardstands.

The triggering of a TARP is not necessarily an incident but commences an investigation which may find that the exceedance is within the above definition of an incident or may require an action to manage the TARP such as avoiding dust prone areas or resurfacing the area with gravel. The investigation response is subject to which TARP is exceeded. Multiple exceedances may occur before investigations determine that an incident has occurred. All incidents are thoroughly investigated and managed using Dartbrook's Health, Safety & Environmental Management System.

Within the context of Dartbrook's approved underground mining, **Table 9** shows a summary of the main TARPs, their aspects risks and responses.

Section 8 outlines the process for the reporting and notification of incidents as well as their inclusion in the Annual Review.

Table 9 Responses to TARP Exceedances

Dust Generation	Risk	TARP	Response
Dust Fallout Level	Elevated readings from Dust Deposition gauges	>4 g/m ² /month	<ul style="list-style-type: none"> • Investigation • Microscopic examination • Regular inspections
Total Suspended Particulate Matter (TSP)	Elevated readings from HV Samplers	>90 µg/m ³	As above
PM ₁₀	As above	>50 µg/m ³	As above
Prolonged Visible Dust	Visual Offence	Visible dust emanating offsite for longer than 5 minutes	Cease operations. Engage a water cart.

Notes

7.7 COMPLAINTS

Dartbrook maintains a 24 hour response line. Any dust complaints are managed in accordance with the approved Dartbrook Complaints Handling Protocol.

In situations where the dust emission levels are perceived by neighbouring landholders or site personnel to be a problem, the procedures outlined below will be implemented:

- The Production Supervisor and/or the Dartbrook Environmental Officer will investigate the situation to determine any signs of visible dust and possible sources;
- Where a problem source is found, the method of operation will be altered or controlled;
- If the source of dust is vehicles on mine roads, then additional road watering will be employed as required, and/or vehicle movements re-routed or slowed;
- If the source of the dust problem is REA earthworks, then additional dust suppression spraying will be employed as required, or if necessary, activities will be relocated or temporarily halted during high-wind periods;
- If the source of the dust problem is coal stockpiles, then additional dust suppression spraying will be employed, as required;
- Any corrective action will be recorded and reported to the Dartbrook Environmental Officer who will record all significant actions, in accordance with the Complaints Handling Protocol;
- The Dartbrook Environmental Officer will be informed of any complaint and details will be recorded in the complaint register, in accordance with the Complaints Handling Protocol; and
- The Dartbrook Environmental Officer will notify potentially affected residents by personal contact or by letter if dust monitoring results indicate that the dust criteria identified in **Table 2** are being exceeded due to Dartbrook mining operations.
- In the event that monitoring demonstrates that the dust criteria (**Table 2**) have been exceeded, the following measures will be implemented:
 - An investigation will be conducted to confirm whether Dartbrook mining operations are the source of the dust;
 - If Dartbrook mining operations are determined to be the source of the dust, an investigation of feasible and reasonable mine site dust controls will be conducted;
 - If identified, feasible and reasonable dust controls will be implemented and monitoring will be conducted to confirm the effectiveness of the controls; and
 - If no reasonable and feasible mine site dust controls are identified, and the mine dust levels are in excess of the dust criteria, the landowner will be able to request acquisition of the property in accordance with Development Consent Condition 11.2 (c).

Cumulative dust impacts on private property above the dust criteria in **Table 2** are not anticipated. Any dust complaints arising from cumulative dust impacts will be investigated and dealt with, in cooperation with other relevant mining operations, in accordance with Development Consent.

8. REPORTING

8.1 ANNUAL REPORTING

In accordance with Condition 9.2 of the Development Consent, an Annual Review will be prepared by the end of March, each year and submitted to the Secretary. This review must:

- (i) *Describe the development (including any rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;*
- (ii) *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:*
 - Relevant statutory requirements, limits or performance measures/criteria;
 - Requirements of any plan or program required under the Development Consent;
 - Monitoring results of previous years; and
 - Relevant predictions in the documents referred to in Condition 1.1(a) of the Development Consent;
- (iii) *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 or incident and avoid reoccurrence;*
- (iv) *Evaluate and report on:*
 - *The effectiveness of the noise and air quality management systems;*
 - *Socio-economic impact of the development including the workforce characteristics of the previous calendar year; and*
 - *The surveillance of any prescribed dam on the site to the satisfaction of the DSC;*
 - *The outcome of the water budget for the year, the quantity of water used from water storages and details of discharge of any water from the site; and*
 - *Compliance with the performance measures, criteria and operating conditions in this consent;*
- (v) *Identify any trends in the monitoring data over the life of the development;*
- (vi) *Identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and*
- (vii) *Describe what measures will be implemented over the next calendar year to improve the environmental performance of the development.*

Specific to air quality, the Annual Review will include:

- Air quality and greenhouse gas monitoring results;
- An assessment of compliance comparing monitoring results against the dust criteria specified in **Table 2**;
- A review of the effectiveness of dust control measures, and any necessary dust management targets or strategies for the following year; and

- A summary of any dust incidents, non-compliances and/or complaints received from the public relating to the mine.

Copies of the Annual Review will be submitted to DPE, MSC, UHSC and made available to the CCC and any interested person upon request.

A comprehensive summary of air quality monitoring results and the Annual Review will also be made publicly available on the Dartbrook Website, in accordance with Condition 13 of the Development Consent.

8.2 INCIDENT AND NON-COMPLIANCE REPORTING

Mine generated air pollution may be defined as adverse levels of gaseous, solid or liquid particles that may remain suspended in the air and may reduce visual amenity and adversely impact health.

The site Pollution Incident Response Management Plan requires the reporting of “pollution incidents immediately to the EPA”, DPE, other appropriate Authorities and neighbours if there is actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial.”

In the event that an incident occurs, Dartbrook will immediately notify DPE and other relevant authorities of the incident in accordance with Condition 9.3 (a) of the Development Consent.

In the event that a non-compliance occurs, Dartbrook will notify DPE in accordance with Condition 9.3 (b) of the Development Consent.

As per **Section 8.1**, all incidents and non-compliance are also reported in the Annual Review.

9. RESPONSIBILITIES

The key personnel with responsibility for environmental management on the mine site will be the Dartbrook Environmental Officer and Tetra Statutory Mine Manager.

The Environmental Officer will be responsible for ensuring that the requirements of this management plan are implemented while the Mine Manager will be responsible for implementing dust control measures specified in this plan.

Environmental Officer

Specific responsibilities of the Environmental Officer will include:

- Ensuring that all personnel are given adequate training in environmental awareness, legal responsibilities and dust control methods;
- Ensuring that mine personnel are aware of the appropriate air quality management controls to be installed in areas disturbed by mining operations;
- Ensuring that monitoring is conducted as described in Section 6;
- Undertaking inspections to ensure air quality controls are adequately implemented; and
- Coordinating response procedures in accordance with Section 7.

Mine Manager

Specific responsibilities of Mine Manager include:

- Implementing dust control measures in accordance with the requirements of this management plan; and
- In the event that a dust complaint occurs, investigating the source and undertaking the response procedures outlined in this plan.

10. REVIEW REQUIREMENTS

Condition 3.2(f)(viii) of the Development Consent requires that all management plans include a protocol for periodic review of the plan. Further to this, Condition 3.2 (k) requires:

...the suitability of existing strategies, plans and programs be reviewed within three months of:

- The notification of an incident under Condition 9.3 (a);
- The submission of an Annual Review under Condition 9.2 (a);
- The submission of an Independent Environmental Audit (IEA) under Condition 8.1 (a); or
- The approval of any modification of the conditions of this consent (unless the condition specifies otherwise), the suitability of existing strategies, plans and programs required under this consent must be reviewed by the Applicant.

Condition 3.2 (l) of the Development Consent, also states:

... 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 Secretary. Where revisions are required, the revised document must be submitted to the Secretary for approval within six weeks of the completion of the review on Condition 3.2 (j).

This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the development.

This AQGGMP will be reviewed (and revised if necessary) in accordance with the above and/or prior to any changes in mining.

11. ABBREVIATIONS

Abbreviation	Meaning
AQGGMP	Air Quality and Greenhouse Gas Management Plan
AHD	Australian Height Datum
AIP	The NSW Aquifer Interference Policy
ARTC	Australian Rail Track Corporation
CCC	Community Consultative Committee
CHPP	Coal Handling and Preparation Plant
DA	Development Application
Dartbrook EIS	<i>Dartbrook Extended Environmental Impact Statement</i> (HLA-Envirosciences, 2000)
DAWE	Commonwealth Department of Agriculture, Water and the Environment
DPE	Department of Planning & Environment
DRG	Department of Planning, Industry and Environment – Division of Resources and Geoscience (now Mining Exploration and Geosciences (MEG) under Department of Regional NSW)
EESD	Environment Energy & Science Division of Department of Planning & Environment
EIS	Environmental Impact Statement
EPA	Environmental Protection Authority
EP&A Act	<i>Environmental Planning & Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning & Assessment Regulations 2021</i> (repealed EP&A Regulation 2000 on 1 March 2022)
EP&A Savings Regulation	<i>Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017</i>
EPBC Act	Commonwealth <i>Environment Protection & Biodiversity Conservation Act 1999</i>
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
GHG	Greenhouse Gas
GIS	Geographic Information System
GPS	Geographical Positioning System
ha	Hectare
ICNG	<i>Interim Construction Noise Guideline</i>
IPCN	Independent Planning Commission NSW
LEP	Local Environmental Plan
LGA	Local Government Area
M	metres
MAP	Management Action Plan
Mbcm	Million bank cubic metres
Mining Act	<i>Mining Act 1992</i>

Abbreviation	Meaning
Mining SEPP	<i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>
Mtpa	Million tonnes per annum
NGER Act	<i>National Greenhouse and Energy Reporting Act 2007</i>
NP&W Act	<i>National Parks and Wildlife Act 1974</i>
NT Act	<i>Commonwealth Native Title Act 1993</i>
RMS	Roads and Maritime Services
SEE	Statement of Environmental Effects, now called a Modification Report for State Significant Development Modification Applications.
SEPP 33	<i>State Environmental Planning Policy 33 – Hazardous and Offensive Development</i>
SEPPs	State Environmental Planning Policies
SPLs	Sound Power Levels
SSD	State Significant Development
WM Act	<i>Water Management Act 2000</i>

12. REFERENCES

- Department of Environment and Conservation (2007). *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales*.
- Donnelly et al. (2011). *NSW Coal Benchmarking Study: International Best Practice Measures to Prevent and/or Minimise Emissions of Particulate Matter from Coal Mining*.
- DPE (2018). *Voluntary Land Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Development*.
- EPA (2016). *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW*.
- ERM (2020). *Air Quality Assessment, Appendix A of Modification 7 Updated Response to Contentions*.
- Hansen Bailey (2018). *Environmental Assessment, Modification 7, Kayuga Seam Bord and Pillar Mining Operations*.
- Hansen Bailey (2021). *Modification 7 Updated Response to Contentions*.
- HLA-Envirosciences (2000). *Dartbrook Extended Environmental Impact Statement*.
- NSW Government (2014). *Approved Methods and the Voluntary Land Acquisition and Mitigation Policy*.
- NSW Health (2017). *Mine Dust and You*.

APPENDIX A
STAKEHOLDER CONSULTATION

Jeff Beatty
General Manager
AQC Dartbrook Management Pty Ltd
6 Stair Street
Kayuga NSW 2333

05/04/2023

Subject: Approval of Air Quality and Greenhouse Gas Management Plan

Dear Mr Beatty

I refer to the Dartbrook Mine Air Quality and Greenhouse Gas Management Plan (AQGGMP) (Version 11, dated 10 March 2023), which has been prepared in accordance with condition 6.1 (f) of DA231-07-2000.

The Department has carefully reviewed the revised AQGGMP and is satisfied that it generally addresses the relevant requirements of the development consent. Accordingly, the Planning Secretary has approved the revised AQGGMP (Version 11, dated 10 March 2023).

However, the Department requests that an updated AQGGMP be submitted by 30 September 2023 to incorporate measures currently under investigation to further reduce Scope 1 and Scope 2 greenhouse gas emissions, including from fugitive emissions. I also note that under the recent EPA Climate Action Policy and associated Climate Action Plan there will be a requirement to prepare a Climate Change Mitigation and Adaptation Plan.

You are reminded that if there are any inconsistencies between the AQGGMP 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



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



Department of Planning and Environment

Jeff Beatty
General Manager
AQC Dartbrook Management Pty Ltd
6 Stair Street
Kayuga NSW 2333

27/02/2023

Dear Mr Beatty

**Dartbrook Coal Air Quality and Greenhouse Gas Management Plan
Request for Additional Information**

I refer to the Air Quality and Greenhouse Gas Management Plan submitted to the Department as required under the conditions of DA231-07-2000 for the Dartbrook Coal Project. After careful consideration, the Department is requesting that you provide additional information as outlined in the attached review table.

You are requested to provide the information, or notification that the information will not be provided, to the Department by Friday 10 March 2023. If you are unable to provide the requested information within this timeframe, you are required to provide, and commit to, a timeframe detailing the provision of this information.

If you have any questions, please contact me on 02 4908 6896 or via email at Joe.Fittell@planning.nsw.gov.au.

Yours sincerely

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

Joe Fittell
Team Leader
Resource Assessments

**Dartbrook Mine (DA231-07-2000-PA-6)
Post Approval Review**



Document: "Air Quality and GHG Management Plan"

Revision: Version 10 Dated "25 October 2022"

Reviewed: "JF" on "27 February 2023"

Air Quality and GHG Management Plan, Condition 6.1(f)	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
f) <i>The Applicant must, prior to the recommencement of construction or mining operations, prepare an Air Quality and Greenhouse Gas Management Plan for the development to the satisfaction of the Secretary. This plan must:</i>	N/A			
i. <i>be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Secretary;</i>	Partial	Please include correspondence from the Department confirming endorsement of JBA to prepare the Plan.	N/A	
ii. <i>describe the measures to be implemented to ensure:</i>	N/A		N/A	
• <i>compliance with the air quality criteria and operating conditions in this consent;</i>	Yes	Section 5 details the measures to be implemented to ensure compliance with relevant criteria.		
• <i>best practice management is being employed (including in respect of minimisation of greenhouse gas emissions from the development and energy efficiency); and</i>	Partial	<ul style="list-style-type: none"> • Please include any company commitments relating to current emissions reduction policy (if they exist). • Does Tetra have any emissions reductions targets which would be included, if so please describe, along with associated reporting requirements? • Is there a procurement policy for fuel-efficient vehicles? • Will Tetra be monitoring fuel useage? 	N/A	
• <i>the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events;</i>	Yes	Section 5.4 details the measures to be implemented to minimise dust impacts during adverse conditions.	N/A	
iii. <i>outline mitigation measures to be employed to minimise dust emissions including dust from rejects emplacement area in dry and windy conditions;</i>	Yes	Section 5.3 describes the mitigation measures to be implemented for dust control around the site.	N/A	
iv. <i>describe the air quality management system in detail; and</i>	Yes	The whole plan described AQ management.		
v. <i>include an air quality monitoring program that:</i>	N/A		N/A	
• <i>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 operations;</i>	Yes	Section 6.1 and 6.2 describe the monitoring system	N/A	
• <i>adequately supports the air quality management system; and</i>				
• <i>includes a protocol for identifying an air quality-related exceedance, incident or non-compliance and notifying the Department and relevant stakeholders of any such event</i>	Yes	Section 7 describes the process to be followed should an exceedance be recorded	N/A	
Management Plan Requirements, Condition 3.2(f)	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
f) <i>Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:</i>	Yes	Sections 1 to 4 provide relevant background.	N/A	
vi. <i>a summary of relevant background or baseline data;</i>				
vii. <i>details of:</i>	Yes	Section 1.4 details the relevant statutory requirements.	N/A	
• <i>the relevant statutory requirements (including any relevant approval, licence or lease conditions);</i>				
• <i>any relevant limits or performance measures and criteria; and</i>	Yes	Section 2 details the relevant performance criteria.	N/A	

Dartbrook Mine (DA231-07-2000-PA-6)
Post Approval Review



Document: "Air Quality and GHG Management Plan"

Revision: Version 10 Dated "25 October 2022"

Reviewed: "JF" on "27 February 2023"

<ul style="list-style-type: none"> 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; 				
viii. description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;	Yes	The plan as a whole does this.	N/A	
ix. a program to monitor and report on the: <ul style="list-style-type: none"> impacts and environmental performance of the development; and effectiveness of the management measures set out pursuant to paragraph (iii); 	Yes	Section 6 describes the monitoring program	N/A	
x. 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;	Yes	Section 7 describes the response procedures that will be implemented if unforeseen impacts arise	N/A	
xi. a program to investigate and implement ways to improve the environmental performance of the development over time;	Yes	Section 4.3 state that new technologies will be investigated and implemented where possible.	N/A	
xii. a protocol for managing and reporting any: <ul style="list-style-type: none"> incident, non-compliance or exceedance of any impact assessment criterion or performance criterion); complaint; or failure to comply with other statutory requirements; and 	Yes	Sections 7 and 8 outline the complaints and incident and non-compliance reporting requirements.	N/A	
xiii. a protocol for periodic review of the plan	Yes	Section 10 outlines the review protocol.	N/A	
Revision of Strategies, Plans and Programs, Condition 3.2(k)	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
k) Within three months of: <ul style="list-style-type: none"> xiv. the notification of an incident under Condition 9.3 (a); xv. the submission of an Annual Review under Condition 9.2 (a); xvi. the submission of an Independent Environmental Audit under Condition 8.1 (a); or xvii. the approval of any modification of the conditions of this consent (unless the condition specifies otherwise), the suitability of existing strategies, plans and programs required under this consent must be reviewed by the Applicant. 	Yes	Section 10 outlines the review protocol.	N/A	
l) 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 Secretary. Where revisions are required, the revised document must be submitted to the Secretary for approval within six weeks of the completion of the review on Condition 3.2 (j).				
Incident and Non-Compliance Reporting Condition 9.3(a) and 9.3(b)	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response
a) 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 to compliance@planning.nsw.gov.au and identify the development (including the development application number and name) and set out the location and nature of the incident.	Yes	Sections 7 and 8 outline the complaints and incident and non-compliance reporting requirements.	N/A	
b) 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 to compliance@planning.nsw.gov.au 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, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance				
General Comments			Action Required	Company Response

Dartbrook Mine (DA231-07-2000-PA-6)
Post Approval Review



Document: "Air Quality and GHG Management Plan"
Revision: Version 10 Dated "25 October 2022"
Reviewed: "JF" on "27 February 2023"

Jeff Beatty
General Manager
AQC Dartbrook Management Pty Ltd
6 Stair Street
Kayuga NSW 2333

09/03/2022

Subject: Dartbrook Mine Appointment of Suitably Qualified Persons to Prepare Air Quality and Greenhouse Gas Management Plan

Dear Mr Beatty

I refer to your request dated 1 March 2023 seeking the Planning Secretary's endorsement of James Bailey and Andrew Wu as suitably qualified and experienced persons to prepare the Air Quality and Greenhouse Gas Management Plan for the Dartbrook Mine.

The Department has reviewed the nomination and information you have provided and is satisfied that James Bailey and Andrew Wu are suitably qualified and experienced.

Accordingly, I can advise that the Planning Secretary approves the appointment of James Bailey and Andrew Wu in accordance with Condition 6.1(f)(i) of DA231-07-2000.

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

Yours sincerely



Joe Fittell
Team Leader
Resource Assessments
As nominee of the Planning Secretary

