



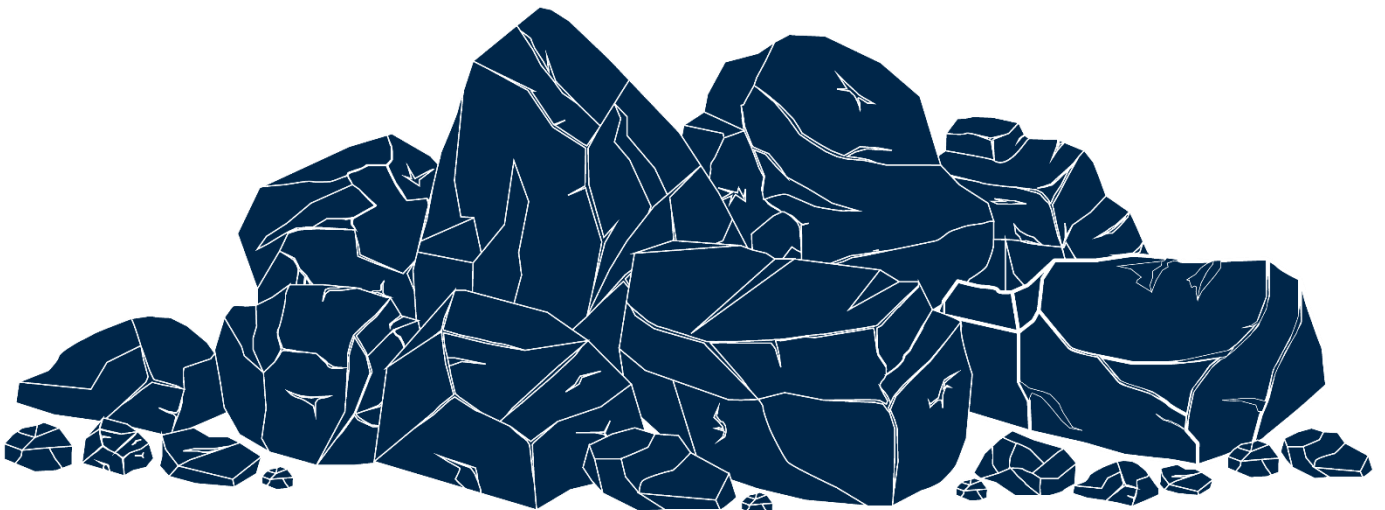
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Karuah East Quarry

Air Quality Management Plan

April 2024



Revision History

Version	Date Reviewed	Author	Status	Amendment Details
1A	October 2015	SLR	Draft for Consultation	Original Air Quality Management Plan developed to satisfy Schedule 3, Condition 16 of the Project Approval.
1B	November 2015	SLR	Approved	Updated for DPE comments.
2A	May 2016	SLR	Approved	Updated for relocated weather station and HVAS monitoring stations.
3A	May 2019	SLR	Approved	Comprehensive review following approval of MOD1 and MOD2 to the Project Approval; and findings of the 2017 Independent Environmental Audit.
4A	February 2024	IEMA	Draft for Consultation	Comprehensive review following approval of MOD8, 9 and 10 to the Project Approval; and the findings of the 2023 Independent Environmental Audit.
4B	April 2024	IEMA	Approved	Updated following consultation with the NSW EPA (PAE-68028992) and MidCoast Council (PAE-68028989).

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Terms, Definitions and Abbreviations

Abbreviation / Term	Meaning
CCC	Community Consultative Committee
DA	Development Application
DDG	Depositional Dust Gauge
EA	Environmental Assessment
EIS	Environmental Impact Statement
EMS	Environmental Management Strategy
EPA	NSW Environmental Protection Authority
HVAS	High Volume Air Sampler
KEQ	Karuah East Quarry
KEQPL	Karuah East Quarry Pty Limited
km	Kilometre
NSW Planning	NSW Department of Planning, Housing and Infrastructure
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
NPWS	NSW National Parks and Wildlife Service, now part of Environment, Energy and Science
RFS	NSW Rural Fire Service
tpa	tonnes per annum

1.0 Introduction

Integrated Environmental Management Australia (IEMA) have been engaged by Karuah East Quarry Pty Limited (KEQPL) to prepare this Air Quality Management Plan to satisfy the requirements outlined in Schedule 3, Condition 16 of the Project Approval (MP09_0175).

1.1 Overview

KEQPL operate the Karuah East Quarry (KEQ), located approximately 5 km northeast of the township of Karuah, in the Mid Coast Local Government Area. KEQ supplies hard rock quarry products to the construction industry, with markets in the Lower and Upper Hunter, Mid Coast, New England and Greater Sydney Regions.

Project Approval (MP09_0175) was granted for the KEQ on 17 June 2014 by the Independent Planning Commission (IPC) (formerly the NSW Planning Assessment Commission) on behalf of the Minister for Planning and Public Spaces (formerly Minister for Planning). Federal Approval (EPBC 2014/7282) was granted for KEQ under the Environment Protection and Biodiversity Conservation Act (EPBC Act 1999) on 20 March 2015.

The KEQ has approval to extract, process, stockpile and transport up to 1.5 million tonnes of andesite material annually until 2034.

1.2 Project Site

The KEQ is located off the Pacific Highway (via Blue Rock Close) and is situated on the following lands:

- Lot 12 and 13 DP 1024564 (the KEQ site); and
- Lot 14 and part Lot 13 DP 1024564 and Lot 5 DP 838128 (biodiversity offset area).

The KEQ is well separated from any substantial residential areas and is located adjacent to the existing Karuah Hard Rock Quarry (KHRQ), approved in June 2005 under DA 265-10-2004. The KHRQ is operated by Hunter Quarries Pty Ltd (a company affiliated with KEQ Pty Ltd) however the Karuah East Quarry and the Karuah Hard Rock Quarry are standalone quarry operations.

Figure 1 illustrates the site locality and regional context.

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1.3 Summary of Project Approval (MP09_0175)

The key features of the Project Approval include the following key elements:

- The extraction (excluding overburden), processing, stockpiling, and transport of quarry products is limited to 1.5 million tonnes in any calendar year;
- Quarrying operation is permitted on the site until 31 December 2034;
- Establishment and use of quarry plant and associated infrastructure;
- Vegetation removal;
- A total permitted disturbance area of 40.18 ha on Lots 12 and 13 DP 1024564;
- Roadworks to secure access to the site including upgrade and extension of Blue Rock Close, realignment of the Andersite Road and Blue Rock Close intersection and adjust road markings at Branch Lane and Andersite Road intersection;
- Establishment of a biodiversity offset area;
- Conditions apply to manage / mitigate potential impacts associated with a range of environmental conditions including noise, blasting, air quality, soil and water, transport, biodiversity, heritage, emergency and hazards management and waste; and
- Progressive rehabilitation of the subject site.

Quarry Operations

Approved quarrying activities undertaken on the site generally include:

- drilling and blasting of rock material within the quarry pit;
- collection and transportation of blasted material to the crushing & processing area using mobile equipment;
- crushing, processing and screening of quarried material is undertaken using fixed and mobile equipment;
- stockpiling of processed material; and
- stockpiled material is loaded onto trucks and exits the site to market via the weighbridge.

Existing and Approved Site Improvements

Existing and approved site improvements include:

- quarry pit (extraction area);
- crushing plant and processing infrastructure;
- wash plant and workshops;
- stockpiling areas;
- internal haulage roads;
- weighbridge office;
- weighbridge (two weighbridges approved);
- stormwater management infrastructure including three (3) dams;
- parking areas for light and heavy vehicles;
- administration office;
- amenity facilities;
- other minor structures; and
- fencing and access gates.

Figure 2 illustrates the approved project disturbance boundary and site layout.

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LEGEND
 Site Boundary
 Lot Boundary

0 70 140 210 280
 Scale: 1:10,000
 m

GDA 1994 MGA Zone 56
 27/02/2024

Karuah East Quarry

406000

406500

407000

407500

408000






6390000

6389500

6389000

LEGEND

-  Site Boundary
-  Approved Disturbance Boundary
-  Lot Boundary



GDA 1994 MGA Zone 56
27/02/2024

Karuah East Quarry

Air Quality Management Plan

FIGURE 2 - Locality Plan

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1.4 Modifications to Project Approval (MP09_0175)

The Project Approval has been modified five times as summarised by **Table 1**.

Table 1 *Summary of Modifications to the Project Approval.*

MOD	Approval Date	Summary
1	27/04/2018	MOD 1 approved a nominal expansion to the approved area of disturbance by 2,500 m ² to allow for improved vehicle manoeuvring in proximity of the crushing plant and processing area.
2	19/12/2018	MOD 2 approved a 1.133 Ha increase to the site disturbance area to allow for improved environmental management and improved operational safety (for quarry vehicles).
3 – 7 withdrawn		
8	22/12/2020	MOD 8 approved revised operational acoustic criteria in line with the <i>NSW Noise Policy for Industry 2017</i> . MOD 8 also formalised a number of industry best practice acoustic mitigation measures that have been installed at the quarry. No change to disturbance footprint occurred.
9	02/12/2021	MOD 9 extended the approved operating hours of the KEQ. No change to disturbance footprint occurred.
10	18/05/2023	MOD 10 provides approval to increase the disturbance area of the KEQ by 7.17 Ha (bringing the total disturbance area of the KEQ to 40.18 Ha). The purpose of MOD 10 was to increase the approved disturbance area to establish additional stockpiling areas, facilitate improved surface water management, construct a new administrative building and expand the vehicle manoeuvring and parking at site.

1.5 Purpose

This document has been prepared to provide the KEQPL with a consistent approach to the management of air quality and sets out the minimum standards and processes to achieve this intended level of management. The Air Quality Management Plan (AQMP) applies only to the KEQ site described in **Section 1.2** and illustrated in **Figure 2**.

1.6 Authorship

In accordance with Schedule 3, Condition 16(a) of the Project Approval, this AQMP has been prepared by Chris Jones and Simon Kirgis of IEMA on behalf of KEQPL, who have been endorsed by the Planning Secretary as suitably qualified and experienced persons (refer **Appendix B**).

1.7 Agency Consultation for this Management Plan

This AQMP has been prepared in accordance with the requirements of the project approval, including the requirement for consultation with the NSW Environment Protection Authority (EPA) and MidCoast Council (formerly Great Lakes Council).

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NSW Environment Protection Authority

Consultation with the EPA was originally completed in October 2015 provided in **Appendix A**), with the EPA advising:

The Environment Protection Authority (EPA) encourages the development of such [management] plans to ensure proponents have determined how they will meet their statutory obligations and designated environmental objectives. However, the EPA does not review these documents as our role is to set environmental objectives for environmental management not to be directly involved in the development of strategies to achieve those objectives.

Further consultation was again undertaken in March 2024 (PAE-68028992) and a similar response was received (**Appendix A**).

MidCoast Council

Consultation with MidCoast Council (Council) regarding this AQMP was completed on 15 September 2015, however, no response or comments were received.

Further consultation was undertaken in March 2024 (PAE-68028989) and similarly, no response was received (**Appendix A**).

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2.0 Regulatory Requirements

2.1 Requirements of the Project Approval (MP09_0175)

The requirements of the Project Approval are summarised by **Table 2**.

Table 2 Summary of Relevant Conditions of the Project Approval.

No	Requirements	Section																							
Schedule 3 – Environmental Performance Conditions																									
Condition 13	<p><u>Air Quality Criteria</u> 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 exceed the criteria in Tables 7 to 9 at any residence on privately-owned land.</p> <p>Table 7: Long-term impact assessment criteria for particulate matter</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #e0e0e0;">Pollutant</th> <th style="background-color: #e0e0e0;">Averaging Period</th> <th style="background-color: #e0e0e0;">^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particles (TSP)</td> <td>Annual</td> <td>^a 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a 30 µg/m³</td> </tr> </tbody> </table> <p>Table 8: Short-term impact assessment criteria for particulate matter</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #e0e0e0;">Pollutant</th> <th style="background-color: #e0e0e0;">Averaging Period</th> <th style="background-color: #e0e0e0;">^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^a 50 µg/m³</td> </tr> </tbody> </table> <p>Table 9: Long-term impact assessment criteria for deposited dust</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #e0e0e0;">Pollutant</th> <th style="background-color: #e0e0e0;">Averaging Period</th> <th style="background-color: #e0e0e0;">Maximum increase in deposited dust level</th> <th style="background-color: #e0e0e0;">Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>^c Deposited dust</td> <td>Annual</td> <td>^b 2 g/m²/month</td> <td>^a 4 g/m²/month</td> </tr> </tbody> </table> <p>Notes to Tables 7 – 9:</p> <ul style="list-style-type: none"> ^a Total impact (ie incremental increase in concentrations due to the development plus background concentrations due to all other sources); ^b Incremental impact (ie incremental increase in concentrations due to the development on its own); ^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method. ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Planning Secretary in consultation with EPA. 	Pollutant	Averaging Period	^d Criterion	Total suspended particles (TSP)	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Pollutant	Averaging Period	^d Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³	Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level	^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month	Section 4.3
	Pollutant	Averaging Period	^d Criterion																						
	Total suspended particles (TSP)	Annual	^a 90 µg/m ³																						
	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³																						
	Pollutant	Averaging Period	^d Criterion																						
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	Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level																					
	^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month																					
	Condition 14	<p><u>Greenhouse Gas Emissions</u> The Applicant must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site.</p>	Section 3.3 and 3.4																						
		<p><u>Air Quality Operating Conditions</u> The Applicant must:</p> <p>a) implement best management practice to minimise dust emissions by the development;</p> <p>b) regularly assess air quality monitoring data and relocate, modify, and/or stop operations on site as may be required to ensure compliance with the air quality criteria in this consent;</p>	Section 3.1																						
Condition 15	<p><u>Air Quality Operating Conditions</u> The Applicant must:</p> <p>a) implement best management practice to minimise dust emissions by the development;</p> <p>b) regularly assess air quality monitoring data and relocate, modify, and/or stop operations on site as may be required to ensure compliance with the air quality criteria in this consent;</p>	Section 3.2 and 5.0																							

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No	Requirements	Section
Condition 15	c) <i>minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d under Tables 7-9); and</i>	Section 3.1 and 3.2
	d) <i>minimise surface disturbance of the site, other than as permitted under this consent.</i>	Section 3.1
Condition 16	<u>Air Quality Management Plan</u> <i>The Applicant must prepare an Air Quality Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:</i>	Whole of document
	a) <i>be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the Planning Secretary;</i>	Section 1.6
	b) <i>be prepared in consultation with Council and the EPA, and submitted for approval to the Planning Secretary prior to the commencement of construction activities</i>	Section 1.7
	c) <i>describe the measures that would be implemented to ensure:</i> <ul style="list-style-type: none"> • <i>compliance with the relevant air quality conditions of this consent;</i> • <i>best practice management is being employed; and</i> • <i>the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events;</i> 	Section 3.0 and 5.4
	d) <i>describe the proposed air quality management system; and</i>	Whole of document
	e) <i>include a monitoring program that:</i> <ul style="list-style-type: none"> • <i>is capable of evaluating the performance of the development;</i> • <i>includes a protocol for determining any exceedances of the relevant conditions of consent;</i> • <i>effectively supports the air quality management system; and</i> • <i>evaluates and reports on the adequacy of the air quality management system.</i> <i>The Applicant must implement the plan as approved by the Planning Secretary.</i>	Section 3.2
Condition 17	<u>Meteorological Monitoring</u> <i>For the life of the development, the Applicant must ensure that there is a suitable meteorological station operating in the vicinity of the site that complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline.</i>	Section 5.4
Schedule 4 – Additional Procedures		
Condition 1	<u>Notification of Landowners</u> <i>As soon as practicable and no longer than 7 days after obtaining monitoring results showing an:</i> <ul style="list-style-type: none"> a) <i>exceedance of any noise, blasting and air quality criteria in Schedule 3, the Applicant must provide the details of the exceedance to any affected landowners and/or tenants; and</i> b) <i>an exceedance of the relevant air quality criteria in Schedule 3, the Applicant must send a copy of the NSW Health fact sheet entitled “Mine Dust and You” (as may be updated from time to time) to the affected landowners and/or existing tenants of the land.</i> 	Section 6.5
Condition 2	<u>Independent Review</u> <i>If a landowner considers the development to be exceeding any noise, blasting or air quality criterion in Schedule 3 of this consent, they may ask the Planning Secretary in writing for an independent review of the impacts of the development on their land.</i>	Section 6.4

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No	Requirements	Section
Condition 3	<i>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.</i>	Section 6.4
Condition 4	<p><i>If the Planning Secretary is satisfied that an independent review is warranted, within 3 months, or as otherwise agreed by the Planning Secretary and the landowner, of the Planning Secretary’s decision, the Applicant must:</i></p> <p><i>a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Planning Secretary, to:</i></p> <ul style="list-style-type: none"> <i>i. consult with the landowner to determine their concerns;</i> <i>ii. conduct monitoring to determine whether the development is complying with the relevant criteria in Schedule 3 of this consent; and</i> <i>iii. if the development is not complying with that criteria, identify measures that could be implemented to ensure compliance with the relevant criteria;</i> <p><i>b) give the Planning Secretary and landowner a copy of the independent review; and</i></p> <p><i>c) comply with any written requests made by the Planning Secretary to implement any findings of the review.</i></p>	Section 6.4
Schedule 5 – Environmental Management, Reporting and Auditing		
Condition 2	<p><u>Adaptive management</u></p> <p><i>The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in this consent. Any exceedance of these criteria and/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.</i></p> <p><i>Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:</i></p>	Section 5.0
	<i>a) take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur;</i>	Section 5.5
	<i>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</i>	Section 3.0
	<i>c) implement remediation measures as directed by the Planning Secretary.</i>	Section 3.0
Condition 3	<p><u>Management Plan Requirements</u></p> <p><i>The Applicant must ensure that the Management Plans required under this consent are prepared in accordance with any relevant guidelines, and include:</i></p>	Whole of document
	<i>a) Detailed baseline data;</i>	Section 4.1
	<p><i>b) A description of:</i></p> <ul style="list-style-type: none"> ■ <i>The relevant statutory requirements (including any relevant approval, licence or lease conditions);</i> ■ <i>Any relevant commitments or recommendations identified in the documents listed in condition 2(d) of Schedule 2;</i> ■ <i>Any relevant limits or performance measures/criteria; and</i> ■ <i>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;</i> 	Sections 2.0 and 4.3
	<i>c) A description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</i>	Section 3.0

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No	Requirements	Section
Condition 3 cont.	d) A program to monitor and report on the: <ul style="list-style-type: none"> ■ Impacts and environmental performance of the development; and ■ Effectiveness of any management measures (see (c) above); 	Section 3.0
	e) A contingency plan to manage any unpredicted impacts and their consequences;	Section 3.2
	f) A program to investigate and implement ways to improve the environmental performance of the project over time;	Section 3.4
	g) A protocol for managing and reporting any: <ul style="list-style-type: none"> ■ Incidents; ■ Complaints; ■ Non-compliances with statutory requirements; and ■ Exceedances of the impact assessment criteria and/or performance criteria; and 	Section 6.3
	h) A protocol for periodic review of the plan.	Section 6.2
Condition 5	<p><i>Within 3 months of:</i></p> <p>a) the submission of an annual review under Condition 4 above;</p> <p>b) the submission of an incident report under Condition 7 below;</p> <p>c) the submission of an audit report under Condition 9 below; or</p> <p>d) any modification to the conditions of this consent, (unless the conditions require otherwise),</p> <p><i>the Applicant must review the strategies, plans, and programs required under this consent, to the satisfaction of the Planning Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted for the approval of the Planning Secretary.</i></p> <p><i>Note: The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any measures recommended to improve environmental performance of the development.</i></p>	Section 6.1
Condition 11	<p><i>The Applicant must:</i></p> <p>a) make the following information publicly available on its website: <ul style="list-style-type: none"> ■ the documents referred to in condition 2(d) of Schedule 2 of this consent; ■ any statutory approvals for the development; ■ approved strategies, plans and/ programs; ■ a summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent; ■ a complaints register, updated quarterly; ■ minutes of CCC meetings; ■ annual reviews; ■ any independent environmental audit, and the Applicant’s response to the recommendations in any audit; and ■ any other matter required by the Planning Secretary; and </p> <p>b) keep this information up-to-date, to the satisfaction of the Planning Secretary.</p>	Section 6.1

2.2 Requirements of the Environment Protection Licence (EPL 20611)

The EPA regulates the operations conducted at the KEQ site through an Environment Protection Licence (EPL 20611) issued under the Protection of the Environment Operations Act 1997 (POEO Act).

There are several conditions relating to air quality / dust management in the EPL that have been addressed in this AQMP. Specific EPL conditions are summarised in **Table 3** together with the relevant sections of the AQMP indicating where the requirements have been addressed.

Table 3 *Requirements of the Environment Protection Licence (EPL 20611).*

Condition	Summary of Condition	Section
P1.1	Air emissions monitoring points	Section 5.0
O3	Dust operating conditions	Section 3.0
M2	Dust monitoring and recording requirements	Section 5.0

3.0 Air Quality Mitigation and Management Measures

3.1 Design and Operational Controls

KEQPL has implemented and maintained the following controls to minimise and manage dust generation from KEQ, including:

- Disturb only the minimum area necessary for on-site activities;
- Exposed areas are rehabilitated as soon as practicable with inert material and revegetated;
- All unsealed roads and haul roads will be watered;
- Perform regular inspections of weather conditions to identify conditions which would be unfavourable in terms of dust levels at nearest sensitive locations blowing in the direction of sensitive receptors) and implement remedial measures if required;
- All trafficable areas and vehicle manoeuvring areas in or on the premises will be maintained, at all times, in a condition that will minimise the emission of dust to the air, or emission from the premises of wind-blown or traffic generated dust;
- Trucks entering and leaving the premises that are carrying loads of dust generating materials will have their loads covered at all times, except during loading and unloading; and
- All plant and equipment to be installed at the site to be maintained and operated in a proper and efficient condition, in accordance with manufacturer's instructions and POEO Act and Regulations.

3.2 Contingency Plan and Management TARP

Where dust or particulate levels repeatedly exceed the relevant air quality criteria at monitoring locations representative of sensitive receptor locations OR prolonged dust events occur (i.e. prolonged visual dust can be observed in a particular area), air quality mitigation measures for excessive dust events will be implemented as follows:

- Deployment of additional water carts;
- Relocation of dust-generating sources or activities; and
- Temporary halting of activities and resuming once weather conditions have improved.

In addition, further air quality control measures will be investigated and site activities moderated until air quality levels return to an acceptable level and/or the source of the exceedances can be determined and managed appropriately in accordance with the mitigation measures outlined in **Section 3.1**.

These further measures are summarised by the Trigger Action Response Plan (TARP) provided by **Table 4**.

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Table 4 Air Quality Management Trigger Action Response Plan (TARP)

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
Above Long Terms Criteria: <ul style="list-style-type: none"> ■ Depositional Dust; ■ TSP; and ■ PM10. 	Trigger	Depositional Dust Annual Average is <2 g/m ² /month TSP Annual Average is <60ug/m ³ /month PM ₁₀ Annual Average is <20 ug/m ³ /month	Depositional Dust Annual Average is >2 g/m ² /month; but <4 g/m ² /month TSP Annual Average is >60 ug/m ³ /month but <90ug/m ³ /month PM ₁₀ Annual Average is >20 ug/m ³ /month but <30 ug/m ³ /month	Depositional Dust Annual Average is >4 g/m ² /month TSP Annual Average is >90 ug/m ³ /month PM ₁₀ Annual Average is >30 ug/m ³ /month
	Response	No response required. Continue monitoring program.	Review and investigate operational activities and respective control measures. Implement additional remedial measures as per Section 5.	<ul style="list-style-type: none"> ■ Review and investigate operational activities and respective control measures. Implement additional controls if due to KEQ operational activities as per Section 5; ■ Consider the need to engage an air quality consultant if non compliances are due to KRQ activities. Review of trends; ■ Reporting of non - compliance in the Annual Review; and ■ Submit an incident report to DPIE as per Schedule 5 Condition 7 of the Project Approval.
Above Short Term PM10 Criteria:	Trigger	PM ₁₀ result is <40 ug/m ³ for short term criteria	PM ₁₀ result is >40 ug/m ³ but <50 ug/m ³ for short term criteria	PM ₁₀ result is > short term criteria of 50 ug/m ³
	Response	No response required. Continue monitoring program.	Review and investigate operational activities and respective control measures. Implement additional remedial measures, such as: <ul style="list-style-type: none"> ■ Deployment of additional water sprays; ■ Relocation or modification of dust-generating sources. 	<ul style="list-style-type: none"> ■ Submit an incident report to DPIE as per Schedule 5 Condition 7 of the Project Approval; ■ Review and investigate operational activities and respective control measures. Implement additional controls if due to KEQ operational activities; ■ Consider need to engage an air quality consultant if non compliances are due to KEQ activities; and ■ Reporting of non - compliance in the Annual Review.
Visual Dust	Trigger	Wind Speeds below 15kph.	Wind Speeds between 15 and 30kph.	Wind Speeds > 30kph.
	Response	Continue AQMP implementation.	Support Services Supervisor reviews effectiveness of control measures. Implement additional remedial measures, such as: <ul style="list-style-type: none"> ■ Deployment of additional water cart / water sprays; ■ Relocation or modification of dust-generating sources; and ■ Temporary halting of dust generating activities. 	Inspection of site by Production and Quarry Managers to determine if there is a need to halt dust generating activities. <ul style="list-style-type: none"> ■ Halted activities do not recommence until remedial measures or additional remedial measures are in place or wind speeds drop to acceptable levels; and ■ Record as a non - compliance in the incident report.
Crusher plant dust	Trigger	No dust is seen coming from crusher or site plant.	A moderate amount of dust is seen coming from the crusher or site plant.	Excessive dust is seen coming from the crusher and other site plant.
	Response	Continue AQMP implementation.	<ul style="list-style-type: none"> ■ Increase sprinklers; ■ Monitor weather conditions; ■ Review the adequacy of screening; and ■ Review the operational settings of the crusher plant. 	<ul style="list-style-type: none"> ■ Stop crushing; ■ Increase sprinklers; ■ Monitor weather conditions; ■ Review the adequacy of screening; ■ Review the operational settings of the crusher plant; and ■ Only recommence activities if mitigation measures have been reviewed and are effective.

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
In pit dust	Trigger	No dust is seen coming from quarrying (in pit) activities	A moderate amount of dust is being generated from quarrying (in pit) activities. Dust is not leaving the pit.	Excessive dust is being generated from quarrying (in pit) activities. Dust is leaving the pit.
	Response	Continue AQMP implementation.	<ul style="list-style-type: none"> Additional water carts / water sprays; Monitor weather conditions; and Review operational activities. Additional use of dust suppression agents 	<ul style="list-style-type: none"> Stop quarrying; Additional water carts; Monitor weather conditions; Review operational activities; and Only recommence activities if mitigation measures have been reviewed and are effective.
Haul road dust	Trigger	No dust is seen coming from transport along haul roads.	A moderate amount of dust is seen coming from haul roads.	Excessive dust is seen coming from transport along haul roads. Dust is leaving site.
	Response	Continue AQMP implementation.	<ul style="list-style-type: none"> Additional water carts / water sprays; Monitor weather conditions; Review operational activities. Additional use of dust suppression agents 	<ul style="list-style-type: none"> Stop haulage; Additional water carts; Monitor weather conditions; Review operational activities; and Only recommence activities if mitigation measures have been reviewed and are effective.

3.3 Greenhouse Gas Management

The following practices will be adopted to assist in the reduction of Greenhouse Gas emissions from operations at the project site. For diesel and petroleum consumption:

- Emissions from transport vehicles and on site machinery will comply with the relevant Australian Standards;
- All vehicles and machinery will be regularly maintained to ensure proper and efficient working order and therefore minimise emissions;
- Optimum vehicle / equipment tire pressures will be maintained;
- The finished site topography will ensure that no excessive engine use is required; and
- Optimisation of incline / decline of roads within the construction area on the project site will be considered to reduce transport distances for vehicles entering / exiting the project site.

For electricity consumption:

- Use of efficient construction equipment technology;
- Use of efficient crushing and processing plant technology; and
- Continued monitoring of site electricity usage and review of techniques to reduce usage (if possible).

3.4 Continuous Improvement & Best Practice Management

KEQ will maintain awareness of new technologies for air quality mitigation through participation in relevant industry groups. KEQ will implement air quality mitigation measures in line with industry best practice mine air quality management where feasible and reasonable and commensurate with the risk of air quality impact from site.

This approach includes application to greenhouse gas emissions in accordance with Schedule 3, Condition 14 of the Project Approval.

3.5 Training

Training is provided to relevant KEQ employees and contractors in relation to the management of air quality and obligations relevant to the activities they carry out in respect to the development. To ensure the effective implementation of this AQMP, relevant supervisors and staff will be provided training to respond adequately to complaints and other air quality / dust related management as required.

Toolbox talks will be conducted to reinforce the importance of air quality / dust management and mitigation on an as needs basis. Training also includes site inductions for all relevant employees and contractors working at KEQ. Training records are maintained as per KEQ internal procedures and management systems.

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4.0 Air Quality Limits

4.1 Baseline Data

As part of the operating conditions for the neighbouring Karuah Hard Rock Quarry, an air quality monitoring network consisting of depositional dust gauges has been maintained in the vicinity of the site in order to ensure compliance with the relevant air quality assessment criteria as outlined in **Section 5.3**.

Figure 3 illustrates the locations of the air quality monitoring sites.

Depositional Dust Monitoring Results

Dust Deposition Gauges (DDGs) record dust fallout, which can be derived from quarry-related activities, and can be a useful measure of changing air quality. Dust deposition monitoring has been performed at locations DDG1, DDG2 and DDG3 since October 2006; DDG4 since January 2012; and DDG5 since August 2016.

Table 5 presents a summary of the dust deposition monitoring results from 2007 to 2022.

Table 5 *Deposited Dust Monitoring Summary – 2007 to 2022.*

Year	Annual Average Dust Deposition (g/m ² /month)				
	DDG1	DDG2	DDG3	DDG4	DDG5
2007	1.8	1.1	1.2	–	–
2008	1.5	1.4	1.0	–	–
2009	1.4	2.0	1.3	–	–
2010	1.2	0.9	1.3	–	–
2011	1.6	1.2	1.9	–	–
2012	1.2	1.3	0.7	0.5	–
2013	1.7	1.0	1.0	1.4	–
2014	1.2	0.9	0.8	1.6	–
2015	1.1	1.3	0.7	1.2	–
2016	2.1	1.1	0.7	1.2	2.2
2017	0.9	0.7	0.9	1.6	1.3
2018	1.1	1.1	0.8	1.4	1.0
2019	1.5	1.8	1.3	1.6	1.8
2020	1.1	0.9	0.8	1.0	1.4
2021	1.1	0.6	0.7	0.7	0.8
2022	0.6	0.8	0.5	0.5	0.7
Long-term Average	1.3	1.1	1.0	1.5	1.3

High Volume Air Sampler Monitoring Results

A high-volume air sampler (HVAS) monitoring unit was initially installed for the Karuah Hard Rock Quarry and operated from October 2006 to December 2008, with average results summarised by **Table 6**.

Table 6 *KHRQ TSP and PM10 Monitoring Summary – October 2006 to December 2008.*

Pollutant	Monitoring Results (µg/m ³)	TSP : PM10 Ratio
Average TSP	24.2	1.9:1
Average PM10	12.7	

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A HVAS monitoring unit was then reinstalled as part of the commencement of the Karuah East Quarry in 2016, with results from 2016 to 2022 being summarised by **Table 7**.

Table 7 KEQ TSP and PM10 Monitoring Summary – 2016 to 2022.

Year	TSP Monitoring Results ($\mu\text{g}/\text{m}^3$)	PM10 Monitoring Results ($\mu\text{g}/\text{m}^3$)
2016	20.5	12.0
2017	22.2	11.6
2018	26.5	15.1
2019*	25.1*	11.5*
2020	23.0	12.0
2021	18.0	10.5
2022	17.0	10.0
Long-term Average	21.8	11.8

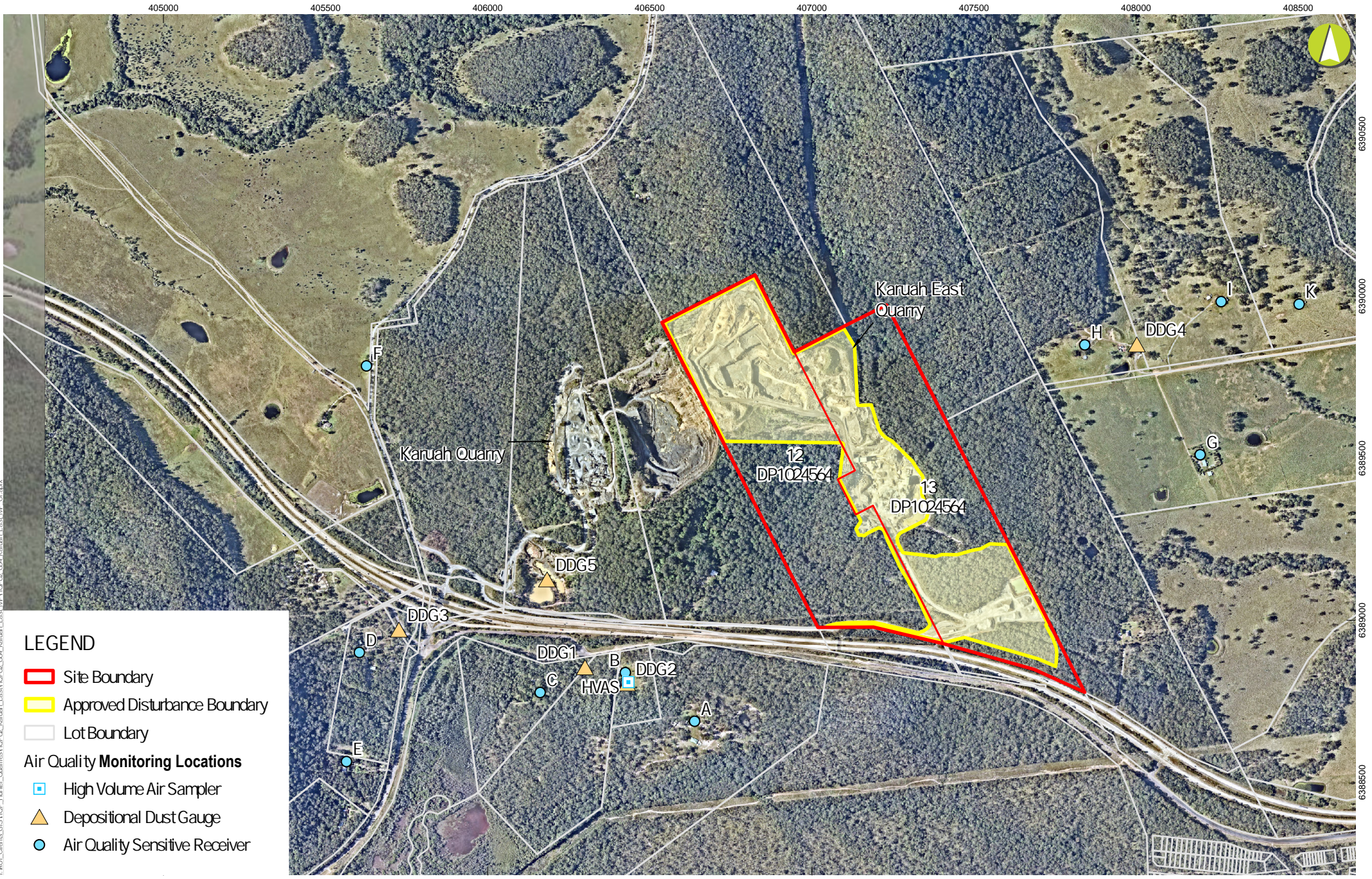
**2019 results were impacted by bushfires in the area and therefore some monitoring data was removed in accordance with the ‘extraordinary event’ provisions of the Project Approval.*

4.2 Air Quality Sensitive Receivers

A number of air quality sensitive receivers, identified as existing approved dwellings, are located in the area surrounding KEQ. These receivers are summarised in **Table 8** and illustrated in **Figure 3**.

Table 8 Air Quality Sensitive Receivers.

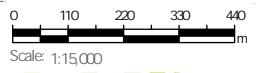
Receiver ID	Property Location (Lot & DP)	Closest Operational Quarry Area	Distance from Nearest Operational Quarry Area (m)
A	Lot 100 DP785172	Go-Line Infrastructure Area	740
B	Lot 3 DP785172	Go-Line Infrastructure Area	810
C	Lot 2 DP785172	KEQ Extraction Pit	1,040
D	Lot 22 DP1024341	KEQ Extraction Pit	1,280
E	Lot 250 DP1092111	KEQ Extraction Pit	1,530
F	Lot 50 DP1036893	KEQ Extraction Pit	1,100
G	Lot 1 DP1032636	Stockpile Area	630
H	Lot 10 DP1032636	Plant and Processing Area	630
I	Lot 11 DP1032636	Stockpile Area	960
J	Lot 13 DP1032636	Stockpile Area	1,920
K	Lot 12 DP1032636	Stockpile Area	1,200



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LEGEND

- ▭ Site Boundary
- ▭ Approved Disturbance Boundary
- ▭ Lot Boundary
- Air Quality Monitoring Locations**
- ▣ High Volume Air Sampler
- ▴ Depositional Dust Gauge
- Air Quality Sensitive Receiver



GDA 1994 MGA Zone 56
27/02/2024

Karuah East Quarry

4.3 Operational Air Quality Criteria

Schedule 3, Condition 13 of the Project Approval provides operational air quality limits for all air quality-sensitive receivers surrounding the site, as summarised by **Table 9**.

Table 9 Air Quality Impact Criteria.

Parameter	Pollutant	Averaging Period	Criteria	
Long-term impact assessment criteria for particulate matter	TSP	Annual	^a 90 µg/m ³	
	PM10	Annual	^a 30 µg/m ³	
Short-term impact assessment criteria for particulate matter	PM10	24 hour	^a 50 µg/m ³	
Long-term impact assessment criteria for deposited dust	Deposited Dust ^c	Annual	Maximum increase in deposited dust level:	Maximum total deposited dust level:
			^b 2 g/m ² /month	^a 4 g/m ² /month

Notes:

- a. Total impact (i.e. incremental increase in concentrations due to the project plus background concentrations due to all other sources).
- b. Incremental impacts (i.e. incremental increase in concentrations due to the project on its own).
- c. Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003 Methods for Sampling and Analysis of Ambient Air – Determination of Particulate Matter - Deposited Matter - Gravimetric Method.
- d. Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General in consultation with EPA.

5.0 Air Quality Monitoring Program

5.1 Overview and General Requirements

KEQ implements an air quality monitoring program which consists of five depositional dust gauges and one HVAS monitoring station in the vicinity of the KEQPL’s operations as illustrated by **Figure 3**. Monitoring results of the program are used to determine the impact of the operation on the sensitive receptors and the surrounding environment; and therefore, the compliance status relative to the Project Approval and EPL.

All air quality monitoring equipment and meteorological instrumentation employed throughout the monitoring program will carry current NATA or manufacturer calibration certificates; and all air quality monitoring samples will be analysed at a NATA-accredited laboratory.

5.2 Monitoring Methodology

Depositional Dust Monitoring Methodology

DDGs are exposed for 30 days (± 2 days) and analysed for Insoluble Solids and Ash Residue. Equipment and methods comply with AS 3580.10.1-2003 “Particulates – deposited matter – gravimetric method” (EPA Approved Method 19 [AM19]).

Where rain events occur, dust deposition flasks will be changed over to prevent over-filling and therefore loss of sample, with the results of the analyses summed to provide a total dust deposition rate for the monitoring period.

Particulate Dust Monitoring Methodology

Particulate monitoring is conducted using a HVAS located at Receiver B, which was installed in April 2016, and is used to gather additional data on the effectiveness of dust suppression controls.

Monitoring of PM10 is undertaken in accordance with AS 3580.9.6-2003 (R2014) “Particulate Matter-PM10-high volume sampler with size selective inlet” (EPA Approved Method 18 [AM-18]). This involves the implementation of a one-day-in-six cycle using a HVAS fitted with size selective inlet for PM10.

Monitoring of TSP is undertaken in accordance with AS2724.3-1984 “Particulate Matter –Determination of total suspended particulates (TSP) - High volume sampler gravimetric method” (EPA Approved Method 15 [AM15]). This also involves the implementation of a one-day-in-six cycle.

5.3 Air Quality Monitoring Locations and Frequency

Locations of the five DDG and one HVAS monitoring locations are illustrated by **Figure 3** and summarised by **Table 10**.

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Table 10 *Air Quality Monitoring Locations.*

Parameter	Receiver ID	Station ID	Monitoring Location			Direction from Quarry Site
			Description	Easting (MGA)	Northing (MGA)	
Depositional Dust	C	DDG1	Mill Hill Close (West)	406300	6388858	South-West
	B	DDG2	Mill Hill Close (East)	406430	6388808	South-West
	D	DDG3	Tarean Road	405726	6388974	South-West
	H	DDG4	Halloran Road	408002	6389854	East
	KHRQ	DDG5	KHRQ	406183	6389129	South-West
TSP/PM10	B	HVAS	Mill Hill Close (East)	406434	6388809	South-West

5.4 Meteorological Monitoring

In accordance with Schedule 3, Condition 17 of the Project Approval a meteorological station has been installed and situated in compliance with Approved Methods for Sampling of Air Pollutants in New South Wales guidelines. The weather station is programmed to continuously record the meteorological parameters as summarised by **Table 11**.

Table 11 *Meteorological Monitoring Parameters.*

Measured parameter	Unit	Sample Interval
Mean wind speed	m/s	15 minutes
Mean wind direction	Degrees	15 minutes
Aggregate rainfall	mm	15 minutes
Mean air temperature	C°	15 minutes

This data can be accessed via a website to view to the latest hour or to download previously recorded data. Previously recorded data is validated and can be downloaded in intervals of 15 minutes.

6.0 Monitoring and Reporting

6.1 Public Reporting

Schedule 5, Condition 11 of the Project Approval requires all significant documents to be published to the Hunter Quarries website, including this Management Plan.

Schedule 5, Condition 8 of the Project Approval requires all monitoring results and other environmental performance data to be made publicly available on the Hunter Quarries website (www.hunterquarries.com.au/reporting/). This information is currently produced on a monthly basis through monthly Environmental Monitoring Reports (EMR's).

Schedule 5, Condition 4 of the Project Approval outlines the requirement for annual reporting through the Annual Review reporting process.

6.2 Periodic Management Plan Reviews

The AQMP will be reviewed and revised / updated in accordance with Schedule 5, Condition 5 of the Project Approval within 3-months of any of the following:

- The submission of an annual review;
- The submission of an incident report;
- The submission of an audit report; and
- Any Modification to the Project Approval.

A review of the AQMP will also take place if monitoring records indicate that it is warranted or in the event of any significant change to operations at KEQ.

The KEQ management team will discuss and review the status of all management plans on an annual basis, but unless required all site environmental management plans will be reviewed and updated every three years.

Other government agencies will be consulted as part of EIS Modifications.

6.3 Complaints Handling and Incident Response

Complaints Handling

All complaints received regarding air quality / dust from the Project will be acknowledged within 24 hours by appropriate personnel and investigated as soon as reasonably practicable. The complainant will be kept updated at key milestones of the investigation and will be notified of the outcome once available.

KEQ will operate a telephone complaints line for the purposes receiving complaints from members of the public in relation to activities conducted at the premises as outlined in the KEQ Environmental Management Strategy (EMS).

KEQ will keep a record of any complaints made to the quarry in relation to the Project site for at least four years after the complaint was made. Additionally, the record will be available to any authorised officer of the EPA who wishes to view them.

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Records will include:

- date and time of complaint;
- method by which the complaint was made;
- personal details of the complainant (if provided);
- nature of the complaint;
- weather conditions corresponding to the time of the complaint;
- action taken by the quarry and any follow up actions; and
- if no action was taken, the reason why no action was taken.

For further details on complaint management refer to the KEQ EMS. Additionally, Condition M5 of the EPL outlines the process for recording pollution complaints.

Non-Compliance and Incident Response

Schedule 5, Condition 7 of the Project Approval requires:

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 via the Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident.

Schedule 5, Condition 7A of the Project Approval requires:

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 via the 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, 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.

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

It should be noted that an exceedance of the air quality limits is typically classified as a non-compliance rather than an incident.

Where a significant pollution incident occurs which causes an impact or material harm, reference will be made to the KEQ Pollution Incident Response Management Plan (PIRMP).

6.4 Independent Review

In accordance with Schedule 4, Condition 2 of the Project Approval, if a landowner considers that KEQ is exceeding any relevant air quality limits they may ask the Planning Secretary in writing for an independent review of the impacts on their residence or land.

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 it, within 21 days of the request for a review.

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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, Karuah East must:

- commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Planning Secretary, to:
 - consult with the landowner to determine their concerns;
 - conduct monitoring to determine whether the development is complying with the relevant air quality limits; and
 - if the development is not complying with the relevant air quality limits, identify measures that could be implemented to ensure compliance with the relevant air quality limits; and
- give the Planning Secretary and landowner a copy of the independent review; and
- comply with any written requests made by the Planning Secretary to implement any findings of the review.

6.5 Notification of Landowners

In accordance with Schedule 4, Condition 1 of the Project Approval, as soon as practicable and no longer than 7 days after obtaining monitoring results showing an exceedance of any air quality criteria in Schedule 3, the Applicant must provide the details of the exceedance to any affected landowners and/or tenants. Any notification will also include a copy of NSW Health's *Mine Dust and You* Factsheet.

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7.0 Community Consultation and Improvement

7.1 Community Consultative Committee

In accordance with Schedule 5, Condition 6 of the Project Approval, KEQ has established and operates a Community Consultative Committee (CCC). The CCC is operated in general accordance with the Community Consultative Committee Guideline, State Significant Projects, June 2023 (NSW Planning).

The CCC is an advisory committee to facilitate communication, consultation and information sharing between the KEQ and the local community. Further details of the CCC are provided in the EMS and on KEQ's website (www.hunterquarries.com.au).

7.2 Performance Monitoring

Compliance of this AQMP with the Project Approval, EPL 20611 and any other relevant agency requirements will be measured according to the following performance indicators:

- Compliance with relevant air quality criteria at monitoring locations.
- Compliance with Australian Standards as required.
- The frequency and nature of complaints reported to the quarry in relation to air quality emissions.
- Contractor and employee awareness of the company's Environmental Policy and this AQMP.
- Compliance with this AQMP, as indicated by statutory reporting.

7.3 Continual Improvement

Through the effective application of best practice principles to on-site activities including, where cost-effective and practicable, the adoption of best practice technologies and air quality control measures, the KEQ will continue to improve environmental performance with progress to be monitored against the performance indicators outlined in **Section 7.2**.

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8.0 Roles and Responsibilities

It is the responsibility of Quarry Manager for the implementation of the AQMP. **Table 12** outlines the responsible positions and accountable tasks.

Table 12 ***Roles & Responsibilities.***

Position	Responsibility
Quarry Manager	<ul style="list-style-type: none"> ■ Provide sufficient resources for the effective implementation of this AQMP. ■ Ensure dust controls measures are inspected and maintained for effective air quality management.
Environment & Development Manager (or suitable delegate)	<ul style="list-style-type: none"> ■ Identify potential air quality impacts and implement actions to mitigate the identified risks; ■ Coordinate and conduct training to ensure all relevant personnel are aware of dust management practices and mitigation measures; ■ Coordinate incident investigation processes including associated reporting requirements in accordance with regulatory requirements and incident reporting procedures; ■ Coordinate the implementation of corrective actions and evaluate their effectiveness; ■ Ensure all internal and external reporting requirements are met; ■ Coordinate, advise and assist with the implementation of air quality monitoring in accordance with the AQMP; ■ Maintain procedures to ensure potential impacts are identified; ■ Maintain monitoring equipment in accordance with the requirements of the Project Approval and this plan; ■ Complete monthly monitoring reports and make these reports available on the Hunter Quarries website as per the requirements of the Project Approval and EPL; ■ Investigate and document findings from dust complaints; ■ Provide input regarding the effectiveness of air quality mitigation measures; and ■ Complete reporting requirements for the Annual Review associated with this plan.
Quarry Supervisors	<ul style="list-style-type: none"> ■ Ensure personnel undertake the relevant air quality management training; ■ Ensure that personnel and contractors carry out work in accordance with this AQMP; and ■ Provide input regarding the effectiveness of air quality mitigation measures.
Quarry Operators	<ul style="list-style-type: none"> ■ Comply with requirements of this AQMP.

9.0 References

- Environmental Assessment Report – Proposed Karuah East Quarry (AD Johnson 2013); Preferred Project Report - Proposed Karuah East Quarry (ADW Johnson 2013);
- Section 75W Application (MOD1) to amend Part 3A Project Approval 09_0175 Minor Increase to Approved Disturbance Area (ADW Johnson 2017);
- Section 75W Application (MOD2) to amend Part 3A Project Approval 09_0175 Minor Increase to Approved Disturbance Area (ADW Johnson 2018b);
- Karuah East Quarry S4.55 (1A) Modification Report (MOD8) Proposed Modification to Operational Noise Criteria and Implementation of Improved Acoustic Mitigation Measures PA 09_0175. Prepared by ADW Johnson Pty Ltd June 2019
- Karuah East Quarry Modification 9 (MP09_0175-MOD-9) Proposed Extended Hours of Operation. Prepared by ADW Johnson Pty Ltd August 2021
- Submissions Report, Karuah East Quarry. Modifications 10. Proposed increase to Approved Disturbance Area (ADW Johnson 2022)

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Appendix A: Agency Consultation (MidCoast Council and EPA)

From: Karen Marler [mailto:Karen.Marler@epa.nsw.gov.au]
Sent: Wednesday, 14 October 2015 12:53 PM
To: Blake Almond
Cc: Peter Jamieson; Jocelyn Karsten; EPA RSD Hunter Region Mailbox; Christopher Jones
Subject: RE: Karuah East Quarry Project - Management Plans [EPA]

Hi Blake, the EPA does not approve management plans. In response to requests regarding consultation on management plans we provide the following standard response..

The Environment Protection Authority (EPA) encourages the development of such plans to ensure that proponents have determined how they will meet their statutory obligations and designated environmental objectives. However, the EPA does not review these documents as our role is to set environmental objectives for environmental management, not to be directly involved in the development of strategies to achieve those objectives.

Regards

K

Karen Marler

Head Regional Operations Unit - Hunter | **NSW Environment Protection Authority** |

☎: (02) 49086803 | Mobile ☎: 0409 606 368 | 📠: (02) 49086810 | ✉: karen.marler@epa.nsw.gov.au

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Scott Ellerton

From: Emma Coombs <Emma.Coombs@epa.nsw.gov.au>
Sent: Friday, 29 March 2024 5:23 PM
To: Scott Ellerton
Subject: Karuah East Quarry Project - Air Quality Management Plan version 4 and Blast Management Plan version 3
Attachments: OPS - OUT - Karuah East Quarry Project - Air Quality Management Plan version 4 - EPL 20611 - 29.03.2023.pdf; OPS - OUT - Karuah East Quarry Project - Blast Management Plan version 3 - EPL 20611 - 29.03.2023.pdf

Good Afternoon Scott,

Please see correspondence attached.

Kind Regards,

Emma

Emma Coombs

A/Unit Head - Operations
Regional Operations North
NSW Environment Protection Authority
D 02 4908 6831 | 0419683146



www.epa.nsw.gov.au @NSW_EPA

The EPA acknowledges the traditional custodians of the land and waters where we work. As part of the world's oldest surviving culture, we pay our respect to Aboriginal elders past, present and emerging.

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PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL



DOC24/159406-5

29 March 2024

KARUAH EAST QUARRY PTY LIMITED
PO Box 23
KARUAH, NSW, 2324
Via email: se@hunterquarries.com.au

Attention: Scott Ellerton

Dear Scott,

Karuah East Quarry Pty Limited Air Quality Management Plan Review

The Environment Protection Authority (EPA) refers to the *Karuah East Quarry Pty Limited Air Quality Management Plan – version 4, dated May 2019* (the Plan). The Plan was provided to the EPA on 27 February 2024 for review and is a requirement of the Project Approval (PA 09_0175) granted on 17 June 2014 for the Karuah East Quarry Project (the Project).

The Environment Protection Authority (EPA) thanks you for providing the Plan for our records.

The EPA encourages the development of such plans to ensure that proponents have determined how they will meet their statutory obligations and designated environmental objectives. However, the EPA does not review, approve or endorse these documents as our role is to set environmental objectives for environmental/ conservation management, not to be directly involved in the development of strategies to achieve those objectives.

Please note that it is a requirement for activities at the premises to remain consistent with relevant approvals, Environment Protection Licence No. 20611 and the *Protection of the Environment Operations Act 1997*.

If you have any questions regarding this matter, please contact me on (02) 49086831 or via email: info@epa.nsw.gov.au, marked to my attention.

Yours sincerely

Emma Coombs
A/Unit Head Operations
Environment Protection Authority

Phone 131 555
Phone +61 2 9995 5555
(from outside NSW)

TTY 133 677
ABN 43 692 285 758

Locked Bag 5022
Parramatta
NSW 2124 Australia

4 Parramatta Square
12 Darcy St, Parramatta
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info@epa.nsw.gov.au
www.epa.nsw.gov.au

The screenshot shows a web application interface for the 'Karuah East Quarry Project'. At the top, there is a navigation bar with the project name and a 'Lodge' button. Below this is a progress bar with steps: 'Initiate Post-Approval', 'Proponent Details', 'Post-Approval Details', 'Create Consultation', 'Evidence of Consultation', and 'Attachments'. The 'Evidence of Consultation' step is currently active.

The main content area is titled 'Evidence of Consultation' and includes a sub-section 'Attach Evidence' with a warning message: 'Below is a list of any consultation you have initiated through the portal. Once the public authority responds it will be automatically attached as evidence. Once each of the public authorities has responded, click "Continue". Please attach any other evidence of consultation not captured by the portal by attaching it below.'

Below this is a table titled 'Public Authority Response Summary' with the following data:

Public Authority	Status	Due Date	Response
MID-COAST COUNCIL (PAE-68028989)	Pending Advice	Tuesday, 12 March 2024	No response received
ENVIRONMENT PROTECTION AUTHORITY (PAE-68028992)	Pending Advice	Tuesday, 12 March 2024	No response received

At the bottom of the interface, there are buttons for 'Back', 'Save', and 'Continue'. The system clock shows 12:22 PM on 12/04/2024.

Document Number	Version Number	Version Date	Revision Date	Document Owner	Page
ENV-MP-KEQ002	Version 4B	12/04/2024	12/04/2027	E&D Manager	36 of 40

Document Number	Version Number	Version Date	Revision Date	Document Owner	Page
ENV-MP-KEQ002	Version 4B	12/04/2024	12/04/2027	E&D Manager	37 of 40

Appendix B: Correspondence with NSW Planning

Document Number	Version Number	Version Date	Revision Date	Document Owner	Page
ENV-MP-KEQ002	Version 4B	12/04/2024	12/04/2027	E&D Manager	38 of 40

Scott Ellerton
Environment and Development Manager
Karuah East Quarry Pty Limited
PO Box 23
Karuah, NSW, 2324

23/06/2023

Subject: Appointment of suitably qualified persons to update environmental management plans

Dear Mr Ellerton

I refer to your request dated 16 June 2023 for the Planning Secretary's endorsement of Chris Jones and Simon Kirgis of Integrated Environmental Management Australia (IEMA) as suitably qualified persons to update the following management plans in accordance with Project Approval MP 09_0175 for the Karuah East Quarry:

- Landscape and Rehabilitation Management Plan (condition 32 of Schedule 3);
- Water Management Plan (condition 21 of Schedule 3);
- Air Quality and Greenhouse Gas Management Plan (condition 16 of Schedule 3);
- Blast Management Plan (condition 12 of Schedule 3); and
- Noise Management Plan (condition 7 of Schedule 3).

The Department has reviewed the nominations and information you have provided and is satisfied that Chris Jones and Simon Kirgis are suitably qualified and experienced. Accordingly, I can advise that the Planning Secretary endorses the appointment of these nominees.

If you wish to discuss the matter further, please contact James McDonough on (02) 9585 6313.

Yours sincerely



Jessie Evans
Director, Resource Assessments
Resource Assessments

As nominee of the Planning Secretary

Scott Ellerton
Environment and Development Manager
Karuah East Quarry Pty Limited
PO Box 23
Karuah, NSW, 2324

18/06/2024

Subject: Air Quality Management Plan

Dear Mr Ellerton


I refer to the Air Quality Management Plan submitted in accordance with Condition 16, Schedule 3 of the consent for the Karuah East Quarry (MP09_0182).

The NSW Department of Planning, Housing and Infrastructure has carefully reviewed the document and is satisfied that it meets the requirements of the relevant conditions of consent (MP09_0175). Accordingly, as nominee of the Planning Secretary, I approve the Air Quality Management Plan (Revision 4B, dated April 2024).

You are reminded that if there are any inconsistencies between the Plan and the conditions of consent, 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 James McDonough on (02) 9585 6313.

Yours sincerely

A handwritten signature in black ink that reads "Jessie Evans".

Jessie Evans
Director, Resource Assessments
Resource Assessments

As nominee of the Planning Secretary