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Karuah East Quarry

# Environmental Monitoring Report

February 2026



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## 1.0 Introduction

This report has been completed to meet the requirements of Section 66(6) of the *Protection of the Environment Operations Act 1997* and the NSW Environmental Protection Authority’s (EPA) Requirements for Publishing Pollution Monitoring Data (EPA, 2013). This report summarises the required monitoring data under Environmental Protection Licence 20611 (the EPL) and Project Approval MP09\_0175 (the Consent) for the Karuah East Quarry (the Quarry) as summarised by **Table 1** and **Table 2** respectively.

**Table 1** Summary of Environment Protection Licence, EPL 20611

<b>EPL Number:</b>	EPL 20611
<b>Licensee’s Name:</b>	Karuah East Quarry Pty Limited
<b>Licensee’s Address:</b>	Karuah East Quarry PO Box 3284, Thornton NSW 2322 Blue Rock Close, Karuah NSW 2324
<b>Link to Full Licence on the EPA website:</b>	<a href="#">EPL 20611</a>

**Table 2** Summary of Project Approval, MP09\_0175

<b>Project Approval:</b>	MP09_0175
<b>Applicant:</b>	Karuah East Quarry Pty Limited
<b>Consent Authority:</b>	NSW Planning Assessment Commission
<b>Link to Full Project Approval on the NSW Planning website:</b>	<a href="#">Project Approval MP09_0175</a>

A summary of the environmental monitoring data for the February 2026 Reporting Period (the Reporting Period) is covered in this report. Tables throughout this report provide key monitoring information from the EPL and the Consent, including:

- location of monitoring;
- pollutant;
- unit of measurement; and
- monitoring frequency required.

Monitoring locations are illustrated by the site plan provided by **Appendix 1**.

## 2.0 Air Quality Monitoring

Dust emissions generated by the Quarry operation must not cause additional exceedances of ambient air quality criterion outlined in Schedule 3, Condition 13 of the Consent and summarised by **Table 3**, **Table 4** and **Table 5**.

Deposited dust and TSP/PM10 monitoring is undertaken at the locations listed in **Table 6**, in accordance with the Approved Methods of Sampling and Analysis of Air Pollutants in NSW (EPA, 2022).

**Table 3 Long-term Assessment Criteria for Deposited Dust (MP09-0175).**

Pollutant	Averaging Period	Maximum Increase in Deposited Dust Level <sup>1</sup>	Maximum Total Deposited Dust Level <sup>1</sup>
Deposited Dust	Annual	2 g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month

<sup>1</sup> Deposited dust is assessed as insoluble solids as defined by AS 3580.10.1-2003.

**Table 4 Long-term Assessment Criteria for Particulate Matter (MP09-0175).**

Pollutant	Averaging Period	Criterion
Total Suspended Particulates	Annual	90 µg/m <sup>3</sup>
Particulate Matter < 10 µm (PM10)	Annual	30 µg/m <sup>3</sup>

**Table 5 Short-term Assessment Criteria for Particulate Matter (MP09-0175).**

Pollutant	Averaging Period	Criterion
Particulate Matter < 10 µm (PM10)	24-hour	50 µg/m <sup>3</sup>

**Table 6 Air Quality Monitoring Locations (EPL 20611).**

Site Monitoring Point ID	EPL Monitoring Point ID	Location	Address
DDG 1	12	South-West of Karuah East Quarry	54 Mill Hill Close, Karuah NSW 2324
DDG 2	13	South-West of Karuah East Quarry	64 Mill Hill Close, Karuah NSW 2324
DDG 3	14	South-West of Karuah East Quarry	Lot 251 DP1092111, Karuah NSW 2324
DDG 4	15	East of Karuah East Quarry	21 Halloran Road, North Arm Cove NSW 2324
DDG 5*	16	South-West of Karuah East Quarry	Lot 21 DP1024341, Karuah NSW 2324
HVAS	9	South-West of Karuah East Quarry	64 Mill Hill Close, Karuah NSW 2324

**NOTE:** \* DDG 5 discontinued monitoring from August 2025 due to deletion from the EPL following acquisition of Lot 11 DP1024564 from Wedgerock Pty Ltd.

## 2.1 Deposited Dust Monitoring

Deposited dust results for the 12-months prior-to and including February 2026 are summarised by **Table 7**. Monitoring results for the Reporting Period at all five DDG monitoring sites are within the long-term annual deposited dust limit of 4 g/m<sup>2</sup>/month.

**Table 7** *Deposited dust monitoring results.*

Reporting Period	Start Date	End Date	Days	DDG 1 (EPL ID 4) EPL ID 12	DDG 2 (EPL ID 5) EPL ID 13	DDG 3 (EPL ID 6) EPL ID 14	DDG 4 (EPL ID 7) EPL ID 15	DDG 5** (EPL ID 8) EPL ID 16
Feb-25	31/01/2025	03/03/2025	31	(1.2)	(0.9)	(1.1)	(1.2)	(2.1)
Mar-25	03/03/2025	03/04/2025	31	(0.7)	(1.0)	(1.4)		(28.2)^
	04/03/2025	03/04/2025	30				(1.1)	
Apr-25	03/04/2025	05/05/2025	32	1.2	3.2	0.4	(1.0)	1.1
May-25	05/05/2025	03/06/2025	29	2.0	3.9	0.2	(0.3)	0.6
Jun-25	03/06/2025	01/07/2025	28	2.9	1.0	0.6	0.4	2.1
Jul-25	01/07/2025	01/08/2025	31	10.1*	0.5	0.4	0.2	0.9
Aug-25	01/08/2025	01/09/2025	31	0.9	2.3	0.5	0.8	–
Sep-25	01/09/2025	01/10/2025	30	1.7	1.3	1.0	0.7	–
Oct-25	01/10/2025	31/10/2025	30	1.1	1.7	1.7	1.2	–
Nov-25	31/10/2025	02/12/2025	32	1.0	2.5	2.1	1.1	–
Dec-25	02/12/2025	02/01/2026	31	1.8	1.6	1.3	1.5	–
Jan-26	02/01/2026	30/01/2026	28	1.1	1.2	0.9	0.5	–
Feb-26	30/01/2026	27/02/2026	28	0.8	1.2	1.1	1.4	–
<b>Progressive Annual Average</b>				<b>2.1</b>	<b>1.4</b>	<b>1.0</b>	<b>0.9</b>	<b>–</b>

**Notes:**      \* Recorded anomalous exceedance which was reported to the NSW Department of Planning, Housing & Infrastructure (NSW Planning), the NSW EPA and surrounding landholders in accordance with the relevant conditions of the Consent and EPL.

^ An exceedance was recorded at DDG5 during the March 2025 Monitoring Period, due to an elevated quantity of combustible matter being recorded (27.5 g). This is attributed to the development of a significant algal bloom on the collected rainwater surface within the dust gauge glassware. This event was reported to NSW Planning, the NSW EPA and surrounding landholders in accordance with the relevant conditions of the Consent and EPL.

\*\* DDG 5 discontinued monitoring from August 2025 due to deletion from the EPL following acquisition of Lot 11 DP1024564 from Wedgerock Pty Ltd.

## 2.2 High Volume Air Sampling

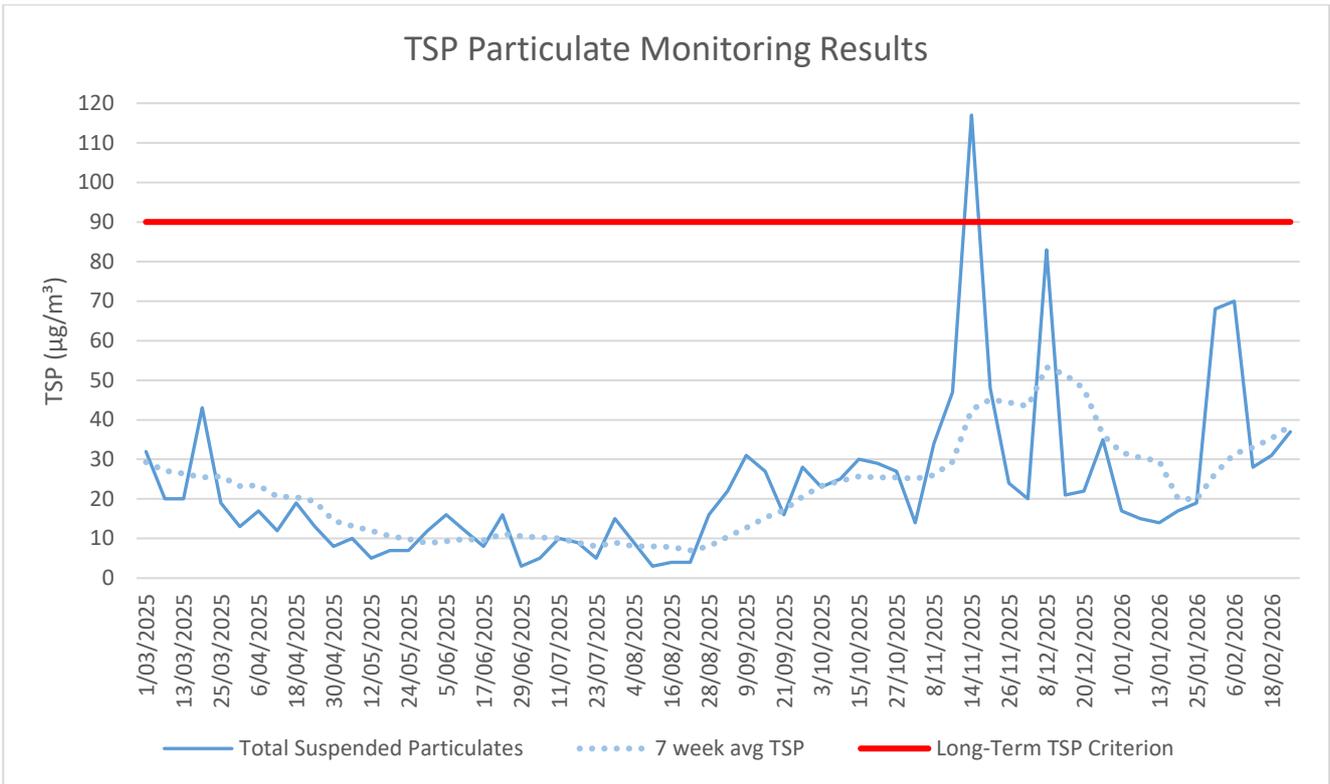
TSP and PM10 results for the Reporting Period are summarised by **Table 8** and illustrated respectively by **Figure 1** and **Figure 2**.

Monitoring results for the four HVAS run days within the Reporting Period were generally compliant with the long-term criteria for TSP and PM10, and short-term criteria for PM10.

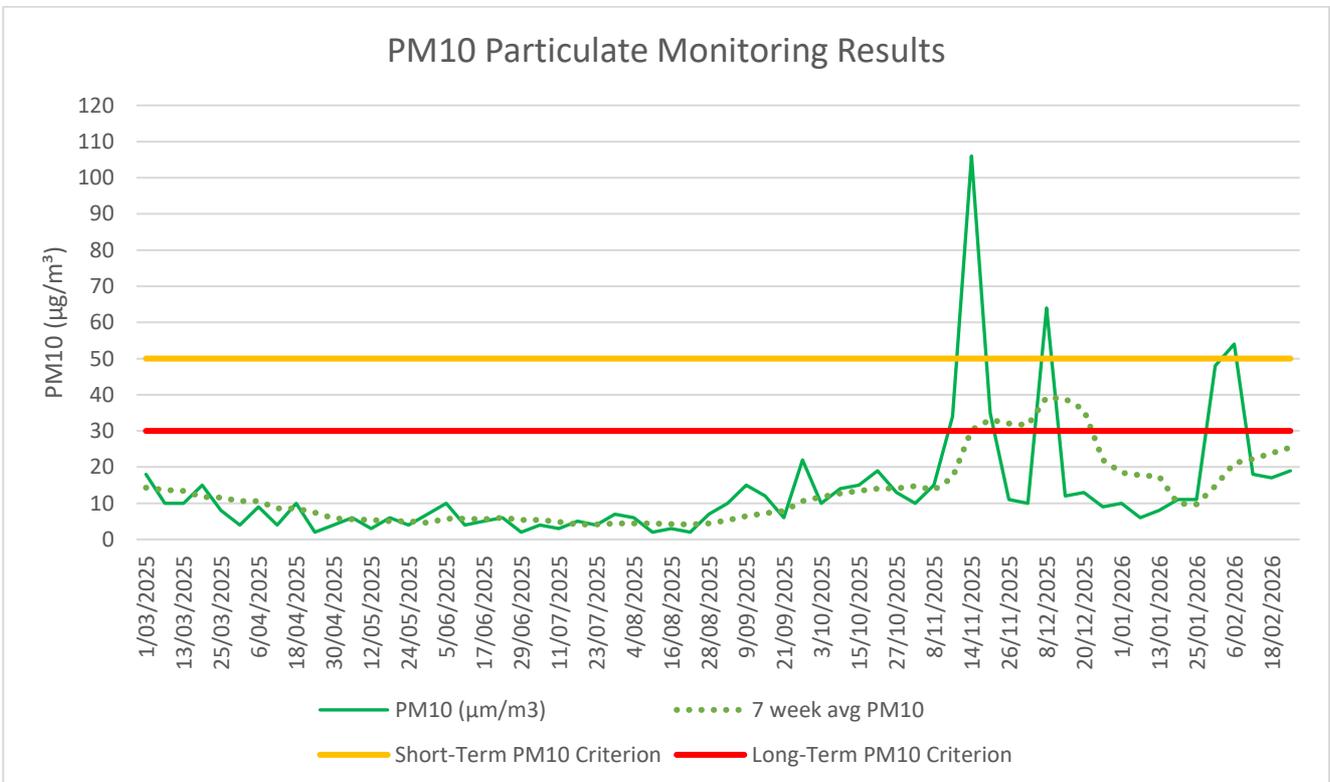
On 06 February 2026, elevated results occurred as a result of bushfire smoke across the Lower Hunter Region from the combined effects of the Pacific Highway, Nerong and Oyster Cove Road, Oyster Cove bushfires.

**Table 8** *HVAS TSP and PM10 monitoring results for the Reporting Period.*

Run Date	Total Suspended Particulates, TSP ( $\mu\text{g}/\text{m}^3$ )	Particulate Matter < 10 $\mu\text{m}$ , PM10 ( $\mu\text{g}/\text{m}^3$ )
06/02/2026	70	54
12/02/2026	28	18
18/02/2026	31	17
24/02/2026	37	19



**Figure 1** Long-term TSP monitoring trends.



**Figure 2** Long-term PM10 monitoring trends.

### 3.0 Blast Monitoring

Blast monitoring is undertaken for all blasts at the Quarry at the nearest residential location (EPL Monitoring Point 11) to ensure that air blast overpressure and ground vibration remain within the compliance limits, as summarised by **Table 9**; with the monitoring results summarised by **Table 10**.

There was one blast undertaken during the Reporting Period, which was observed to be within compliance limits.

**Table 9** *Blasting Airblast Overpressure and Ground Vibration Criteria (MP09-0175 & EPL 20611).*

Location	Airblast Overpressure (dB(L))	Ground Vibration (mm/s)	Allowable Exceedance
Private Residence B	120	10	0%
EPL Monitoring Point ID 11	115	5	5% over 12-month reporting period.

**Table 10** *Blasting Monitoring Results.*

Date	Time	Location	Airblast Overpressure (dB(L))	Ground Vibration (mm/s)
24/02/2026	14:09	RL 120 + 135	n/t	n/t

\*Not triggered = n/t  
 Ground Vibration < 0.5 mm/s  
 Overpressure < 108 dB(L)

### 4.0 Noise Monitoring

Noise monitoring is undertaken in accordance with the EPL and NSW Planning approved Noise Management Plan, which requires attended noise monitoring to be conducted on a quarterly basis.

There was no noise monitoring undertaken during the Reporting Period.

## 5.0 Surface Water Monitoring

Water monitoring is undertaken in accordance with the EPL and NSW Planning approved Water Management Plan, with daily monitoring of surface water being discharged from the Quarry via the licenced discharge points in accordance with Condition L2 and M2 of the EPL.

There were two discharge events spread across two days during the Reporting Period are summarised by **Table 11**.

**Table 11** *Discharge Water Monitoring Results.*

Date	pH	Turbidity (NTU)	Total Suspended Solids, TSS (mg/L)	Oil and Grease	Discharge Type
<b>LDP 1 – Dam 1</b>					
-	-	-	-	-	-
<b>LDP 2 – Dam 2</b>					
02/02/2026	7.4	15	9	Not Visible	Controlled
09/02/2026	7.7	3.3	< 5	Not Visible	Controlled
<b>LDP 3 – Dam 3</b>					
-	-	-	-	-	-



## 7.0 Production Data

Monthly monitoring of sales and truck movements are summarised by **Table 12**.

**Table 12** Quarry Production Data.

Month	Truck Movements	Quarry Product Sales (t)
Jan-26	1,669	53,474
Feb-26	2,453	76,092
<b>Progressive Annual Total</b>	<b>4,122</b>	<b>129,566</b>

## 8.0 Reporting

### 8.1 Reportable Environmental Incidents

During the Reporting Period, no reportable environmental incidents occurred at the Quarry.

### 8.2 Reportable Non-Compliances

During the Reporting Period, one air-quality related non-compliance occurred at the Quarry, as outlined below:

- An exceedance of short-term (daily) particulate monitoring criteria occurred on 06 February 2026 due to smoke generated from the Pacific Highway, Nerong bushfire to the north-east. This was potentially exacerbated by residual fire activity associated with the Oyster Cove Road, Oyster Cove bushfire to the south.

Notifications were subsequently issued to NSW Planning, the NSW EPA and surrounding landholders in accordance with the relevant conditions of the Consent and EPL.

### 8.3 Community Complaints

During the Reporting Period, no community complaints were reported to the Quarry.

## Appendix 1 – EPL 20611 Monitoring Locations

