



Karuah Hard Rock Quarry
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Karuah Hard Rock Quarry

Community Consultation Report

H1 2023



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Definitions

Definition	Meaning
the Consent	DA 265-10-2004
the Department	Department of Planning and Environment
EPA	NSW Environmental Protection Authority
EPL	Environmental Protection Licence 11569
GLC	Great Lakes Council (former)
HQPL	Hunter Quarries Proprietary Limited
MCC	MidCoast Council
the Quarry	Karuah Hard Rock Quarry
the reporting period	1 January 2023 to 30 June 2023

1.0 Introduction

1.1 Background

The former Great Lakes Council (GLC) granted conditional Development Consent (DA 302/1997) for a hard rock quarry, crushing plant and intersection upgrade of the Pacific Highway at Karuah on 03 December 1997. Hunter Quarries Pty Limited (HQPL) purchased the site from Mountain Industries in 2002 and has since operated a hard rock quarry at the site, known as Karuah Hard Rock Quarry (the Quarry). The material extracted at the Quarry is andesite, which is a hard, blue rock used for various purposes such as road base material, construction aggregate, aggregate used for concrete batching, drainage works, fill, landscaping and other uses.

Development Consent (DA 265-10-2004) was granted by the Minister for Infrastructure, Planning and Natural Resources on the 3 June 2005, with the approved development including:

- Implementing the remainder of the approved Stage 1 quarry operation;
- Extending the quarry operations into the Stage 2 area;
- Upgrading and using existing infrastructure on site;
- Rehabilitating the site by re-contouring and revegetating exposed surfaces; and
- Producing up to 500,000 tonnes of product a year over the next 22 years.

1.2 Community Consultation Report

In accordance with Schedule 4, Condition 8 of the Consent, HQPL sought expressions of interest from the community to serve as members of a Community Consultative Committee (CCC) in 2007 and again in 2011. On both occasions, the minimum of two expressions of interest were not received, therefore a CCC was not able to be established.

This Community Consultation Report has therefore been prepared in accordance with the Communication Strategy developed to satisfy Schedule 4, Condition 10 of the Consent and outlined in the Quarry's Environmental Management Strategy.

The Community Consultation Report summarises HQPL environmental and community management plans, monitoring results, audit reports and any environmental incidents or complaints that have occurred during the reporting period. Once prepared, the Community Consultation Report is made available to MidCoast Council, nearby residents and to the public at HQPL's website.

2.0 Air Quality Monitoring

HQPL ensure that all practical mitigation measures are used to prevent and minimise particulate matter emissions generated by the Quarry operation, so emissions do not exceed the criteria in Schedule 3, Condition 13 of the Consent at any residence on any privately-owned land.

Air quality monitoring is undertaken in accordance with the approved Environmental Monitoring Program.

2.1 Deposited Dust Monitoring

Deposited dust monitoring results for the reporting period are summarised in **Table 1**.

Monitoring results indicate that for the period from 6 June 2023 to 4 July 2023 the insoluble solid levels recorded at DDG 1 to DDG 4 monitoring locations were below the project criterion of 4 g/m²/month over an annual averaging period.

The results for DDG 4 returned a high value for insoluble solids during the June 2023 reporting period. Based on laboratory analysis this was determined to be due to high combustible matter being present in the sample, which is generated from sources external to Karuah Quarry, such as vegetation. The inorganic matter component, of which Karuah Quarry dust contributes to, was found to be in line with the results from the other depositional dust gauges and relatively low.

Table 1 – Deposited dust monitoring results

Month	Start Date	End Date	DDG1	DDG2	DDG3	DDG4
January 2023	05/01/2023	03/02/2023	0.2	0.4	0.8	0.1
February 2023	03/02/2023	06/03/2023	0.9	0.7	0.2	0.3
March 2023	06/03/2023	05/04/2023	1.1	1.5	1.1	1.1
April 2023	05/04/2023	04/05/2023	0.3	0.5	0.3	0.2
May 2023	04/05/2023	06/06/2023	0.2	0.3	0.3	0.4
June 2023	06/06/2023	04/07/2023	0.6	2.5	1.8	40.0*
Progressive Annual Average			0.6	0.8	0.6	0.6
Annual Average Criteria			4.0	4.0	4.0	4.0

*contaminated sample

2.2 High Volume Air Sampling

High volume air sampling monitoring results for the reporting period are summarised in **Table 2**. On the 16 of June 2023, the PM10 24-hour limit was exceeded by 1 µg/m³. The cause of this is currently being investigated.

Table 2 – High volume air sampling results

Date	TSP (µg/m ³)	PM10 (µg/m ³)
05/01/2023	20	11
11/01/2023	13	9
17/01/2023	19	10
23/01/2023	13	9
29/01/2023	16	12
04/02/2023	25	14
10/02/2023	20	12
16/02/2023	18	10
22/02/2023	17	8
28/02/2023	20	11
06/03/2023	40	23
12/03/2023	22	14
18/03/2023	32	22
24/03/2023	16	11
30/03/2023	16	11
05/04/2023	14	11
11/04/2023	16	9
17/04/2023	14	8
23/04/2023	11	6
29/04/2023	21	10
05/05/2023	53	28
11/05/2023	72	41
17/05/2023	11	6
23/05/2023	82	49
29/05/2023	11	4
04/06/2023	25	15
10/06/2023	13	10
16/06/2023	81	51
22/06/2023	57	26
28/06/2023	12	6
24hr Max Criteria	N/A	50
Year-to-date Average	22	12.1
Annual Average Criteria	90	30

3.0 Blast Monitoring

HQPL conducts blasts in accordance with the Consent and the EPL to avoid harm and minimise nuisance to environment and the surrounding community. Blast monitoring results for the reporting period are summarised in **Table 3**.

Table 3 – Blast monitoring results

Date	Time	Overpressure (dB(L))	Vibration (mm/s)
10/02/2023	12:41 pm	108.3	1.60
28/02/2023	2:02 pm	110.5	1.13
26/04/2023	11:27 am	110.4	1.93
15/06/2023	12:02 pm	111.7	2.10

Not triggered = n/t

4.0 Noise Monitoring

HQPL uses all practical mitigation measures to ensure that the operational noise generated by the Quarry does not exceed the criteria stipulated in the Consent and the EPL. Noise monitoring is undertaken in accordance with the Quarry’s Environmental Monitoring Program.

4.1 Attended Noise Monitoring

Attended noise monitoring was undertaken during April, the results are summarised in **Table 4**. The results detail all noise sources, including quarry operations, road traffic and/or animals (such as cattle, inspectors or birds). The results are compliant with the criteria of the Consent and the EPL.

Table 4–Attended noise monitoring results – April 2023

Location	Start Date and Time	Wind		Stability Class	Limits apply? ¹	Limits, dB	Site levels, dB	Exceedances, dB ¹
		Speed m/s	Direction ³			L _{Aeq,15minute}	L _{Aeq,15minute} ²	L _{Aeq,15minute}
NM1	19/04/2023 16:54	0.9	137	A	Y	48	IA	Nil
NM2	19/04/2023 17:15	1.2	128	A	Y	48	IA	Nil

Notes: 1. Noise emission limits are applicable if weather conditions were within parameters specified in Section 2.5. NA in exceedance column indicates that limits were not applicable due to weather conditions.

2. Site-only L_{Aeq,15minute} includes modifying factor penalties if applicable.

3. Degrees magnetic north, “-” indicates calm conditions.

4.2 Unattended Noise Monitoring

Unattended noise monitoring was undertaken during April at monitoring locations NM1 and NM2, the results are displayed in **Table 5**. The unattended noise monitoring results are compliant with the criteria of the Consent and the EPL.

Table 5–Unattended noise monitoring results – April 2023

Location	Period	Measured noise levels, dB	
		RBL	L _{Aeq,period}
NM1 19-24 April 2023	Day	48	55
	Evening	45	54
	Night	38	50
NM2 19-24 April 2023	Day	57	65
	Evening	51	64
	Night	38	61

Notes: 1. Levels in this table are not necessarily the result of activity at site.

5.0 Water Monitoring

Water monitoring is undertaken in accordance with the Quarry’s Site Water Management Plan. This includes biannual monitoring of surface water and daily monitoring of water during discharge events from the licenced discharge point (LDP).

5.1 Surface Water

Surface water monitoring is to be undertaken biannually and compared against baseline data to ensure that ecological health downstream of the discharge location is not compromised due to the Quarry operation.

During the reporting period, surface water monitoring was undertaken on 08 June 2022, with monitoring results summarised in **Table 6**.

Table 6 – Surface water monitoring results – Sediment Dam 2

Date	Temp (°C)	pH	EC (µS/cm)	Turbidity (NTU)	TSS (mg/L)	Oil & Grease (mg/L)	Total N (mg/L)	Total P (mg/L)
08/06/2023	16.2	7.7	361	230	180	< 5	0.2	0.1

5.2 Discharge Compliance

Water quality monitoring is undertaken daily during discharge to demonstrate compliance with pollutants specified in the EPL. During the reporting period, there were no discharges from our LDP located at Sediment Dam 2, with monitoring results summarised in **Table 7**.

Table 7 – Discharge monitoring results – Sediment Dam 2

Date	Temp (°C)	pH	EC (µS/cm)	Turbidity (NTU)	TSS (mg/L)	Oil & Grease (mg/L)
-	-	-	-	-	-	-

6.0 Production

Monthly monitoring of sales across the reporting period is summarised in **Table 8**. In total there were approximately 105,000 tonnes of product sold, with an associated 4,227 truck movements.

Table 8 – Monthly production data

Month	Truck Movements	Quarry Product (tonnes)
January 2023	422	23,644
February 2023	842	30,016
March 2023	668	27,579
April 2023	616	23,500
May 2023	776	24,651
June 2023	903	29,149
Total	4227	104,739

7.0 Reporting

7.1 Incidents

During the reporting period, HQPL did not have any environmental incidents.

7.2 Non-Compliances

During the reporting period, HQPL had two reportable non-compliances, both in relation to air quality, including:

- Failure to Monitor event associated with contamination of two Deposited Dust Gauges with organic matter in the June 2023 monitoring period; and
- PM10 Exceedance event on 16/06/2023 with a High Volume Air Sampler record of 51 µg/m³ against the Consent criteria of 50 µg/m³.

7.3 Complaints

During the reporting period, HQPL received no complaints.

7.4 Management Plans

During the reporting period, HQPL did not update any management plans.

7.5 Audits

During the reporting period, HQPL did not undertake any compliance audits.

Appendix 1 – EPL 11569 Monitoring Locations

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406000

407000

408000

639 0000

639 0000



LEGEND

-  Blast Monitoring Site
-  Air Quality Monitoring Site
-  Noise Monitoring Site
-  Water Monitoring Site
-  Watercourse
-  Lot Boundary



Scale: 1:12,000
GDA 1994 MGA Zone 56

05-Aug-2020
630.30036

Source: Nearmap (June 2020)