Noise Monitoring

Boral Johns River Quarry – POELA Act 2011 Monitoring Data

Environment Protection Licence No. 4812

Record updated on: 2 July 2024

Background

Noise monitoring is undertaken at Johns River Quarry in accordance with Condition M9 of the Johns River Environment Protection Licence (EPL) No. 4812 which states:

M9 Noise monitoring

M9.1 To assess compliance with the noise limits condition, attended noise monitoring must be undertaken in accordance with the conditions above and:
a) at each of the three most affected residences listed in the noise limit tables;
b) occur annually in a reporting period;
c) occur during each day, evening and night period as defined in the NSW Industrial Noise Policy for a minimum of:
• 1.5 hours during the day;
• 30 minutes during the evening; and
• 1 hour during the morning-shoulder.
d) occur for three consecutive operating days.

Note: The EPA will consider this frequency of monitoring, upon request, after the first three years of monitoring or if monitoring or community complaint suggests more frequent monitoring is required.

Noise monitoring is undertaken to demonstrate the sites compliance to the Noise limits specified in the EPL which are specified in Condition L4 of the Johns River EPL 4812 which states:

L4 Noise limits

L4.1 Noise generated at the premises that is measured at each noise monitoring point established under this licence must not exceed the noise levels specified in Column 4 of the table below for that point during the corresponding time periods specified in Column 1 when measured using the corresponding measurement parameters listed in Column 2.

POINT 11

Time period	Measurement parameter	Measurement frequency	Noise level dB(A)
Day	Day-LAeq (15 minute)	Special Frequency 1	42
Evening	Evening-LAeq (15 minute)	Special Frequency 1	42
Morning-Shoulder	Morning Shoulder-LAeq(15 minute) (6am-7am Mon. -Sat. & 6am-8am Sun & Public Holidays)	Special Frequency 1	42
Morning-Shoulder	LAmax	Special Frequency 1	45

POINT 12

Time period	Measurement parameter	Measurement frequency	Noise level dB(A)
Day	Day-LAeq (15 minute)	Special Frequency 1	37
Evening	Evening-LAeq (15 minute)	Special Frequency 1	37
Morning-Shoulder	Morning Shoulder-LAeq(15 minute) (6am-7am Mon. -Sat. & 6am-8am Sun & Public Holidays)	Special Frequency 1	37
Morning-Shoulder	LAmax	Special Frequency 1	45

POINT 16

Time period	Measurement parameter	Measurement frequency	Noise level dB(A)
Day	Day-LAeq (15 minute)	Special Frequency 1	38
Evening	Evening-LAeq (15 minute)	Special Frequency 1	38
Morning-Shoulder	Morning Shoulder-LAeq(15 minute) (6am-7am Mon. -Sat. & 6am-8am Sun & Public Holidays)	Special Frequency 1	38
Morning-Shoulder	LAmax	Special Frequency 1	46

POINT 6,7,8,10,13,14,15,17

Time period	Measurement parameter	Measurement frequency	Noise level dB(A)
Day	Day-LAeq (15 minute)	Special Frequency 1	35
Evening	Evening-LAeq (15 minute)	Special Frequency 1	35
Morning-Shoulder	Morning Shoulder-LAeq(15 minute) (6am-7am Mon. -Sat. & 6am-8am Sun & Public Holidays)	Special Frequency 1	35
Morning-Shoulder	LAmax	Special Frequency 1	45

POINT 9

Time period	Measurement parameter	Measurement frequency	Noise level dB(A)
Day	Day-LAeq (15 minute)	Special Frequency 1	37
Evening	Evening-LAeq (15 minute)	Special Frequency 1	37
Morning-Shoulder	Morning Shoulder-LAeq(15 minute) (6am-7am Mon. -Sat. & 6am-8am Sun & Public Holidays)	Special Frequency 1	37
Morning-Shoulder	LAmax	Special Frequency 1	46

Note: Special frequency 1 - refers to monitoring conditions contained in this licence in Condition M8

L4.2 For the purpose of the noise limits :

- Day is defined as the period from 7 am to 6 pm Monday to Saturday, and 8 am to 6 pm Sunday and public holidays.
- Evening is defined as the period 6pm - 10 pm.
- Morning Shoulder is defined as the period from 5am to 7 am Monday to Friday.

L4.3 The noise limits set out above apply under all meteorological conditions except for the following:

a) Wind speeds greater than 3 metres/second at 10 metres above ground level.
b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
c) Stability category G temperature inversion conditions.

L4.4 For the purposes of noise limit conditions:

a) Data recorded by a meteorological station installed on site must be used to determine meteorological conditions; and

b) Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.

L4.5 To determine compliance:

a) with the Leq(15 minute) noise limits above, the noise measurement equipment must be located:

- approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or
- within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable
- within approximately 50 metres of the boundary of a National Park or a Nature Reserve.

b) with the LA(Max) noise limits above, the noise measurement equipment must be located within 1 metre of a dwelling façade.

c) with the noise limits above, the noise measurement equipment must be located:

- at the most affected point at a location where there is no dwelling at the location; or
- at the most affected point within an area at a location prescribed in (a) or (b) above.

L4.6 A non-compliance with noise limits will still occur where noise generated from the premises in excess of the appropriate limit is measured:

- at a location other than an area prescribed in these noise limit conditions and/or
- at a point other than the most affected point at a location.

L4.7 For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

Noise Monitoring Locations

To determine compliance with the EPL requirements above, the three most affected residences selected for the noise monitoring (as per Condition M9.1 of the EPL) are:

- Location 1 (EPL17) - situated at the corner of Johns River Road and Royan Street, Johns River, NSW, approximately 1400m south-east of the quarry. This monitoring location is representative of receivers in the village of Johns River;
- Location 2 (EPL6) - situated at the residence at 20 Yaralin Close, Johns River, NSW. This location is the closest eastern receiver to the quarry and is adjacent to the Pacific Highway; and
- Location 3 (EPL8) - situated at the residence at 117 Algona Road, Johns River, NSW, approximately 800m from the northern boundary of the quarry. This monitoring location is representative of monitoring locations to the north of the quarry.

Noise Monitoring Results

2023 Noise Assessment

Muller Acoustic Consulting Pty Ltd (MAC) completed a Noise Monitoring Assessment on behalf of Boral Resources (Country) Pty Limited for Johns River Quarry, Johns River, NSW. The assessment was completed between Tuesday 31 October and Friday 3 November 2023 to quantify site noise emissions against relevant noise limits pertaining to quarry operations in accordance Condition L4 of the EPL (Ref: 4812).

Results for the attended monitoring identified that operational emissions generated by the quarry comply with EPL noise limits at all monitoring locations for all assessment periods for the 2023 survey. Furthermore, project related noise emissions were generally inaudible at monitoring locations and are masked by dominant extraneous non-quarry sources such as highway traffic and localised noise sources.

A copy of the Noise Monitoring Assessment prepared by Muller Acoustic Consulting is available on request.

2022 Noise Assessment

Muller Acoustic Consulting Pty Ltd (MAC) completed a Noise Monitoring Assessment on behalf of Boral Resources (Country) Pty Limited for Johns River Quarry, Johns River, NSW. The assessment was completed between Tuesday 18 October and Friday 21 October 2022 to quantify site noise emissions against relevant noise limits pertaining to quarry operations in accordance Condition L4 of the EPL (Ref: 4812).

Results for the attended monitoring identified that operational emissions generated by the quarry comply with EPL noise limits at all monitoring locations for all assessment periods for the 2022 survey. Furthermore, project related noise emissions were generally inaudible at monitoring locations and are masked by dominant extraneous non-quarry sources such as highway traffic and localised noise sources.

2021 Noise Assessment

Muller Acoustic Consulting Pty Ltd (MAC) completed a Noise Monitoring Assessment on behalf of Boral Resources (Country) Pty Limited for Johns River Quarry, Johns River, NSW. The assessment was completed between Tuesday 18 November and Friday 19 November 2021 to quantify site noise emissions against relevant noise limits pertaining to quarry operations in accordance Condition L4 of the EPL (Ref: 4812).

Results for the attended monitoring identified that operational emissions generated by the quarry comply with EPL noise limits at all monitoring locations for all assessment periods for the 2021 survey. Furthermore, project related noise emissions were generally inaudible at monitoring locations and are masked by dominant extraneous non-quarry sources such as highway traffic and localised noise sources.

2020 Noise Assessment

Muller Acoustic Consulting Pty Ltd (MAC) completed a Noise Monitoring Assessment on behalf of Boral Resources (Country) Pty Limited for Johns River Quarry, Johns River, NSW. The assessment was completed between Monday 2 November and Thursday 5 November 2020 to quantify site noise emissions against relevant noise limits pertaining to quarry operations in accordance Condition L4 of the EPL (Ref: 4812).

Results for the attended monitoring identified that operational emissions generated by the quarry comply with EPL noise limits at all monitoring locations for all assessment periods for the 2020 survey. Furthermore, project related noise emissions were generally inaudible at monitoring locations and are masked by dominant extraneous non-quarry sources such as highway traffic and localised noise sources.

REPORT ENDS