ENVIRONMENTAL NOISE AUDIT

INGHAMS BERRIMA FEEDMILL
CNR. DOUGLAS & BERRIMA ROADS
BERRIMA NSW

PREPARED FOR

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Cnr. Douglas & Berrima Roads
Berrima NSW 2577

MONITORING PERIOD

22nd January 2026

CONTRACT NO C26 9605
REPORT NO EMS26 3040

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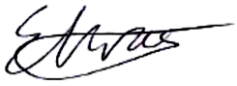
AUTHOR: 	Edward Krasilovsky BEng (Mechanical) Engineer	Date: 29.01.2026
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1 INTRODUCTION

1.1 Project Description

Environmental Monitoring Services (EMS) was engaged by Nathan McLaren of Inghams Enterprises Pty Ltd to provide an Environmental Noise Audit which is conducted annually, generally in January of each year. The noise audit is a part of the NSW EPA licence (11261) for the operation of the feedmill. Noise measurements were conducted around the Inghams Berrima Feedmill in Berrima, NSW between approximately 5:00am and 6:45am on Thursday January 22nd, 2026. At the time of the audit, the plant was operating with trucks operating within the site.

The noise sources being monitored were heavy vehicle movements including deliveries, as well as plant onsite which runs two shifts, 3:00am to 9:00pm Monday to Thursday & 4:00am to 4:00pm Fridays, with occasional works 6:00am to 4:00pm on Saturdays for production. Truck movements into/out of the site are generally between 4:00am and 4:00pm on weekdays and occasionally on Saturdays. Continuous mechanical plant noise emission was observed during the daytime during a pre-works site visit, as well as during the nighttime period when the noise audit was conducted.

1.2 Site Location

The Inghams Berrima Feedmill site is located on the corner Douglas and Berrima Roads in Berrima, NSW. Following previous annual investigations onsite, it is understood that two residential properties (NM2 and NM3) have been identified as reference residential receivers for the purpose of noise compliance assessments.

Inghams and EMS agreed that the assessment of the noise emissions will be conducted in the same reference locations as past audits.

The noise monitoring locations where EMS were instructed to conduct the attended surveys are listed below in Table 1.1 and depicted in Figure 1.1 on the following page.

Table 1.1 – Noise Monitoring Locations

Refence Location	Location Address
NM1	Chelsey Park (non-residential)
NM2	Brookdale Road (residential)
NM3	Carribee Road (residential)
NM4	Berrima Road (non-residential)

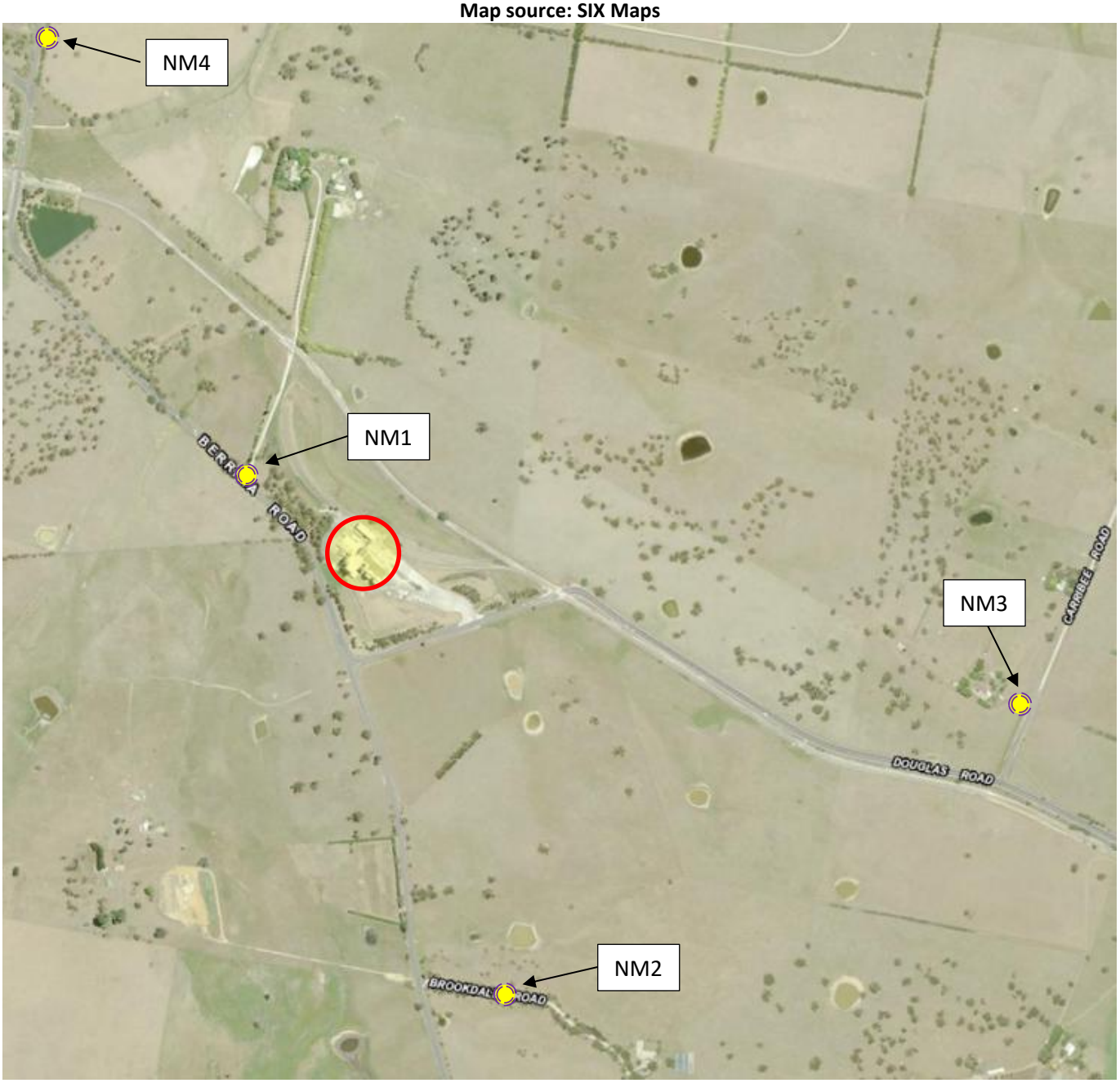
The residential receivers are located to the southeast and east of the feedmill site and are identified as NM2 and NM3.

Non-residential receivers are located to the west and northwest of the feedmill site and are identified as NM1 and NM4.

Figure 1.1 on the following page outlines the noise monitoring locations.

Figure 1.1

Map source: SIX Maps



Environmental Monitoring Services

Legends

Attended Noise Monitoring Locations

Feedmill Site

Site: Cnr. Douglas and Berrima Roads, Berrima NSW

Report No.: EMS26 3040

Contract No.: C26 9605

2 NOISE MONITORING

2.1 Methodology

Attended Sound Pressure Level (SPL) measurements of the onsite noise sources were taken on the 22nd January 2026 using a calibrated Brüel & Kjær 2250 Sound Level Meter (SLM) – S/N 3029393. Field calibration checks were performed on the unit prior to and after monitoring and no significant drift was found.

The SLM was set to record 'A' weighted statistical SPL in octave bands, with a 1 second L_{Aeq} and L_{AMax} logger trace using a 'fast response' with constant audio recording during the measurements.

Field marking within the SLM was conducted during the assessment to mark noise events which are not attributed to noise from the site. The marked periods were used to separate the marked sources from unmarked sources (assumed to be Inghams) to determine the relative contributions toward the overall measured L_{Aeq} noise level.

The noise monitor collects the L_{Aeq}, this represents the equivalent continuous noise level – the level of noise equivalent to the energy average of noise levels occurring over a measurement period.

The L_{A1}, L_{A10} and L_{A90} were also obtained during the monitoring period which are the sound pressure levels that are exceeded for 1%, 10%, and 90% of the measurement period respectively.

The L_{Amax} was obtained which represents the highest Root Mean Squared (RMS) level measured by the sound level meter over the time constant, which for this assessment is 125ms.

No rain fell during the assessment and windspeeds were below 5 m/s. Weather conditions reported at the BOM Moss Vale AWS (068239) during the audit were wind speeds between "Calm" and 2.2 m/s and winds predominantly in a ENE direction with partial cloud cover overhead.

2.2 Audio Recording

The SLM was configured to record audio for the entirety of each measurement. Field markers were amended and/or confirmed during post-measurement desktop review of the audio following the onsite measurements.

3 NOISE CRITERIA

3.1 NSW EPA EPL Noise Criteria

The NSW EPA issued Environmental Protection Licence (EPL), Licence No: 11261 dated 8-Feb-2024 states the following Limit Conditions for Noise in Section L2:

L2 Noise limits

L2.1 Noise from the premises must not exceed a LAeq(15 minute) noise emission criterion of 40dB(A) at any time.

L2.2 Noise from the premises is to be measured at any point on or within the residential boundary or at any point within 30m of the dwelling (rural situations) where the dwelling is more than 30m from the boundary to determine compliance with the LAeq(15 minute) noise limits in condition L2.1.

The modification factors presented in Section 4 of the NSW Industrial Noise Policy January 2000 shall also be applied to the measured noise levels where applicable.

L2.3 The sound pressure level of noise (LAmax) emitted from the premises must not exceed the background sound pressure level (LA90, 15minutes) by more than 15dB(A) between the hours of 10:00pm and 7:00am.

L2.4 Noise from the premises is to be measured at any point within one metre of the façade of the most affected residential premises to determine compliance with condition L2.3.

The summary of the noise criteria is listed below in Table 3.1.

Table 3.1 – Summary of the noise criteria at residential receivers for the feedmill facility dB(A)

Time of Day	$L_{Aeq,\ 15\text{-minute}}$	L_{AMax}
At anytime	40 dB(A)	-
Between 10:00 pm – 7:00 am	40 dB(A)	≤ $L_{A90,15min}$ + 15 dB(A)

4 RESULTS

4.1 Noise Monitoring Results

Table 4.1 below displays the overall unfiltered measured $L_{Aeq,\ 15\ min}$ and $L_{A90,\ 15\ min}$ sound pressure level and the filtered Inghams L_{Aeq} and L_{AFMax} sound pressure level at each of the 4 monitoring locations, both residential and non-residential. The Filtered Inghams L_{Aeq} and L_{AMax} are the logarithmic average of all 1 second L_{Aeq} and the highest L_{AMax} throughout the survey period that was not significantly affected by extraneous noise.

Table 4.1 – Measured Unfiltered $L_{Aeq,\ 15\ min}$, $L_{A90,\ 15\ min}$, Inghams L_{Aeq} and L_{AMax} noise levels

Noise Descriptor	NM1 Chelsey Park (non-residential)	NM2 Brookdale Road (residential)	NM3 Carribee Road (residential)	NM4 Berrima Road (non-residential)	NSW EPA EPL Noise Criteria
Unfiltered $L_{Aeq,\ 15\ min}$ Measured SPL	53.8	47.1	43.8	52.8	-
Unfiltered $L_{A90,\ 15\ min}$ Measured SPL	44.6	37.2	36.3	43.2	-
Inghams L_{Aeq} SPL	46.0	**38.7**	**38.0**	45.2	40 dB(A) (residential only)
Inghams L_{AMax} SPL	50.4	**49.5**	**46.4**	50.8	≤ L_{A90} + 15 dB(A) (residential only)

4.2 Noise Analysis Discussion

The NM1 – Chelsey Park (non-residential) monitoring location to the west of the site featured traffic noise along Berrima Road, birds and insects, as well as truck movements and a mechanical hum from the Inghams Feedmill. An infrequently operated train to the north also passed the site during the audit.

The NM2 – Brookdale Road (residential) monitoring location to the south of the site featured traffic noise along Berrima Road, birds and insects, cows, and noise assumed to be from the Inghams Feedmill.

The NM3 – Carribee Road (residential) monitoring location to the east of the site featured traffic noise along Douglas Road, distant traffic noise presumed to be from Berrima Road, birds, insects, cows, a concrete infrastructure yard along Douglas Road. The noise from the Inghams Feedmill was inaudible.

The NM4 – Berrima Road adj. Taylor Ave (non-residential) monitoring location to the north-west of the site featured traffic noise along Taylor Avenue and Berrima Road and birds and insects. Noise from vehicle movements to/from Boral Cement, as well as plant noise, was audible at this location.

To provide a representation of the noise contribution from the Inghams Feedmill facility, the attended noise measurement results obtained were comprehensively filtered due to measurement locations being dominated by road traffic noise in addition to other sources within the environment, as mentioned above.

The filtered $L_{Aeq,\ period}$ results for each location were determined using field marking on the SLM and following post-measurement audio recording analysis where contributions from the feedmill and other significant noise sources were quantified.

The Inghams L_{Aeq} results shown in Table 4.1 are the logarithmic average of all $L_{Aeq,\ 1\ second}$ results attributed to the site and/or periods where no other noise sources were audible. This conservatively assumes that the measured noise from Inghams is continuous over a 15 minute period (in the absence of extraneous noise) and has not been time averaged over the fifteen minute period to obtain a partial $L_{Aeq,15\ minute}$ contribution. It should be noted that there was always some contribution from birds and insects during the measurement at all locations. Vehicle noise featured significantly throughout the measurements at all locations and was filtered out.

As seen from the Table 4.1, the noise levels of 38.7 dB(A) and 38.0 dB(A) at NM2 and NM3 respectively, comply with Licence Condition L2.1 of not exceeding the 40 dB(A) criteria at residential assessment points.

It can also be seen from this table that the L_{Amax} attributed to the Inghams Feedmill was less than 15 dB over the measured $L_{A90,\ 15min}$ background at NM2 and NM3 and complies with License Condition L2.3.

5 CONCLUSIONS

An Environmental Noise Audit was conducted for the Inghams Berrima Feedmill to test compliance with the noise limit conditions stipulated within the NSW EPA Environment Protect Licence (11261) for the facility.

Inghams and EMS agreed that the assessment of the noise emissions will be conducted in the same four (4) reference locations as within previous annual audits, whereby two (2) locations have been identified as reference residential receivers for the purpose of noise compliance assessments.

As seen in Table 4.1, the results for each residential monitoring point (NM2 and NM3) satisfied the License Conditions of L2.1 (not exceeding the 40 dB(A) criteria at residential assessment points) and L2.3 (not exceed the background $L_{A90,\ 15min}$ by 15 dB).

See Section 4.2 for noise analysis discussion on the monitoring methodology, locations and results garnered from the audit.

6 REFERENCES

NSW EPA - Noise Policy for Industry (2017)

NSW EPA – Environment Protection Licence for the facility – 11261 (version 8-Feb-2024)