Submission for proposed data centre – 12 Mars Road, Lane Cove West

Application Number: SSD-82052708

We, the Lane Cove Responsible Planning Group, ***object*** to the proposed data centre at 12 Mars Road, Lane Cove West.

The Lane Cove West Responsible Planning Group had engaged consultant Acoustic Dynamics to undertake a "Noise Emission Assessment – Expert Peer Review" of the EIS for 12 Mars Road (SSD-82052708), with focus on its Appendix U – Noise Impact Assessment.

This submission should be read together with the attached "Noise Emission Assessment – Expert Peer Review" prepared by Acoustic Dynamics, dated 5 May 2026.

The proposed development is not a conventional warehouse or low-impact industrial use. It is a large-scale, 24-hour, 7-day-per-week data centre involving substantial mechanical plant, 49 rooftop back-up emergency generators, eight cooling towers, two load banks, 40 air-cooled chillers, electrical substations and associated plant. The development is located close to established residential receivers, including homes near Banksia Close, Wood Street and surrounding streets.

Given the scale, proximity and continuous operation of the proposed development, the acoustic assessment as part of the EIS must be robust, conservative and capable of demonstrating that the proposal can be constructed and operated without unacceptable noise impacts. In our view, the current EIS and Noise and Vibration Impact Assessment does not achieve this.

1. Reliance and verification

The attached Acoustic Dynamics peer review concludes that the SLR report does not contain sufficient information to determine whether the proposed development can achieve acoustic compliance or avoid unacceptable acoustic impacts at the most affected receivers. Acoustic Dynamics further states that, without further information including revised background monitoring, revised modelling, source contribution data and finalised mitigation requirements, it is not possible to adequately review the acoustic assessment or be confident that the proposal can be constructed and operated to achieve compliance during all phases and modes of operation.

This is a fundamental issue for the assessment of the proposal. If the independent peer reviewer cannot verify the assessment or be confident that acoustic compliance can be achieved, the Noise and Vibration Impact Assessment should not be accepted as a reliable basis for approval.

2. Background Noise Monitoring for the Most Affected Receivers

Acoustic Dynamics raises specific concerns regarding the background noise monitoring for NCA02, which includes receivers predicted to be among the most affected by both

construction and operation. The peer review queries whether the L02 monitoring location is conservative for all receivers within NCA02 and notes that it may have been influenced by existing site operations, traffic or other local noise sources, potentially raising the background noise levels and resulting in less conservative assessment criteria.

The peer review recommends additional noise logging for NCA02, including at 64, 66 and 68 Wood Street, and states that the lower background noise levels should be used to determine the assessment criteria if lower levels are measured.

This should be required before determination. If the adopted background noise levels are overstated, then the project noise trigger levels may also be overstated, which could give a false impression of compliance.

3. The EIS Does Not Adequately Assess the Critical Power Failure Scenario

A key issue identified in the peer review is that the Department's SEARs required worst-case modelling of plant and equipment for each assessment period, including testing of back-up power systems and a critical power failure scenario. Acoustic Dynamics expressly states that the SEARs require assessment of generator noise during an emergency power failure against the Noise Policy for Industry criteria.

We refer to the following excerpt taken from the Peer Review, page 7:

> 43. Within the SEARs document for the project (dated 10 April 2025), the Department of Planning, Housing and Infrastructure (DPHI) state the following (emphasis added by Acoustic Dynamics):
>
> "*Operational noise – The EIS must include an operational noise assessment which:*
> …
> - *Includes details of manufacturer specifications for plant and equipment and the noise source inventory (demonstrating worst-case modelling of plant and equipment for each assessment period, including testing of any back-up power system* ***and a critical power failure scenario***).*"*
>
> 44. Acoustic Dynamics considers that the DPHI's SEARs document requires the assessment of noise emission from the generators on-site during an emergency power failure against the NPfI criteria.

This is particularly important because the peer review notes that SLR predicted noise from the Power Outage scenario but did not assess it against the NPfI criteria or use it to determine the feasibility of the proposal. Acoustic Dynamics further notes that SLR's own predictions indicate operation of all emergency back-up generators would exceed the night-period NPfI criterion by as much as **19 dB(A)** at receivers in NCA02.

This is a serious issue. A power outage is a foreseeable operating condition for a data centre. Even if infrequent, the impact could be substantial, particularly if generator operation occurs at night and continues for an extended period. This scenario should not be treated as

“information only”, as suggested within the EIS. It should be properly assessed as part of the acoustic acceptability of the proposal.

4. Generator and Internal Breakout Noise Are Not Adequately Resolved

The proposal relies on a large number of emergency generators. Acoustic Dynamics notes that the generator sound power levels are based on design assumptions and that the generator enclosures are presumably yet to be designed and constructed. The peer review also states that breakout noise through the generator enclosure itself should be considered, and that a “shipping container style” enclosure is likely to be insufficient to adequately mitigate generator breakout noise.

Acoustic Dynamics also identifies that internal data hall noise should be modelled and assessed, particularly because data halls are known to be noisy environments and the architectural plans indicate glazed façades, which may be less effective in reducing noise transmission from internal areas to the external environment.

These are not minor matters. Generator noise and internal data hall breakout noise are central to the acoustic risk profile of the development. They should be fully assessed before approval, not deferred to later design stages.

5. The Operational Noise Model Cannot Be Independently Verified

Acoustic Dynamics attempted to undertake noise modelling and acoustic predictions based on the SLR report, but states that significant additional information was required and had not been provided. Missing information includes exact receiver coordinates, receiver heights, breakout noise from emergency generators and air-cooled chillers, assumed building envelope construction and sound transmission characteristics, and heights of on-site vehicle noise sources. Acoustic Dynamics concludes that, without this information, it is not possible to reliably conduct noise modelling to verify SLR’s predictions.

This undermines confidence in the EIS. The consent authority, community and independent experts should be able to interrogate and verify the acoustic model, particularly for a development of this scale and proximity to residential receivers.

6. There is an apparent inconsistency in the Operational Noise Results

The peer review identifies an apparent inconsistency in SLR’s modelling results for NCA02. SLR predicts OP.01 at 48 dB(A) and OP.02 at 47 dB(A), despite OP.02 adding generator testing sources. Acoustic Dynamics describes this as an illogical conclusion and states that further explanation and correction is required before the modelling results can be relied upon.

This issue should be resolved before determination. It affects confidence in the modelling and the reported compliance conclusions.

7. Source contributions and Most Affected Receivers must be identified

The peer review identifies that the SLR report does not provide enough detail to understand source contributions or identify the most affected individual receiver locations. Acoustic Dynamics recommends that Table 33 be expanded to include noise contributions from source groups such as mechanical plant, vehicle traffic and emergency generator testing, as well as the location of the most affected receiver in each NCA.

Acoustic Dynamics' required further information list also requests results for the three most affected receiver locations within each NCA, including address, property location, height and coordinates of the receptor point.

This information is essential. The use of broad Noise Catchment Areas should not obscure impacts at the most affected homes, facades, rear yards or upper-level bedroom windows.

8. Low-Frequency, Tonal and Sleep Disturbance impacts require further assessment

The peer review requires additional one-octave or one-third-octave band data for the assessment of low-frequency and tonal noise, and requests LAmax noise contours for the assessment of sleep disturbance and night-time operations.

This is particularly important for a 24-hour data centre with diesel generators, cooling towers, air-cooled chillers, transformers, load banks and other mechanical plant. These sources may generate low-frequency, tonal, intermittent or maximum noise events that are more intrusive in quiet residential night-time environments.

The assessment should not be limited to average LAeq noise levels. It should properly address LAmax events, night-time sleep disturbance, generator start-up, emergency operation and other intermittent operational noise sources.

9. Mitigation Measures are indicative and not sufficiently committed

Acoustic Dynamics identifies that SLR's mitigation measures are not sufficiently explicit. The peer review notes that while mitigation options are identified, they do not provide explicit recommendations required to achieve compliance once operations begin. For example, acoustic screening is described as indicative, suggesting further changes may occur during later design.

The peer review also states that a detailed, site specific Operational Noise Management Plan must be prepared and submitted to demonstrate the management measures necessary to allow the proposal to operate in compliance with relevant operational noise criteria. Acoustic Dynamics concludes that, until such an ONMP is provided, the assessment does not sufficiently address the SEARs requirement to outline proposed mitigation, management and monitoring measures.

For a 24-hour data centre close to homes, this is unacceptable. Binding acoustic mitigation and operational controls should be provided before determination, not deferred to post-approval design or management plans.

10. Construction Noise impacts require further detail

Acoustic Dynamics identifies that SLR's construction noise assessment lacks detail regarding noise sources and modelled scenarios for each stage of demolition and construction, including the number of excavators or rock-breakers operating simultaneously, hours and duration of use, source locations and management or mitigation included in the assessment.

The peer review also notes that receivers in NCA02 are predicted to be the most impacted due to proximity to the eastern boundary.

Construction impacts must be assessed against a realistic demolition and construction methodology. Generic mitigation measures are not sufficient where nearby residents may be exposed to significant construction noise for extended periods.

Requested Outcomes

We request that NSW Planning:

1. Not approve the proposal on the basis of the current Noise and Vibration Impact Assessment.
2. As a minimum, require the Applicant to prepare a revised Noise and Vibration Impact Assessment addressing the issues identified in the Acoustic Dynamics peer review.
3. Require supplementary background noise monitoring for NCA02 and the most affected residential receivers.
4. Require full assessment of the critical power failure / Power Outage scenario against the relevant noise criteria, including night-time operation
5. Undertake requirements as listed in the SEAR including "*demonstrating worst-case modelling of plant and equipment for each assessment period, including testing of any back-up power system and a critical power failure scenario.*"
6. Require complete assessment of emergency generator noise, including enclosure breakout, start-up noise, full-load operation and exhaust noise.
7. Require assessment of internal data hall breakout noise and building façade transmission.
8. Require source contribution tables and identification of the most affected individual receiver locations.
9. Require correction and explanation of the OP.01 / OP.02 modelling inconsistency.
10. Require one-octave or one-third-octave analysis for low-frequency and tonal noise.
11. Require LAmax noise contours and a detailed sleep disturbance assessment.
12. Require finalised and enforceable acoustic mitigation requirements.

13. Require a detailed site-specific Operational Noise Management Plan prior to determination.
14. Require realistic demolition and construction noise modelling based on detailed methodology.
15. Require the revised noise assessment to be independently reviewed and re-exhibited for public comment.

Conclusion

The noise impacts of the proposed data centre at 12 Mars Road, Lane Cove West have not been adequately demonstrated.

The attached Acoustic Dynamics peer review identifies material deficiencies in the SLR Noise and Vibration Impact Assessment, including uncertainty in background noise monitoring, insufficient information to verify the noise model, inadequate assessment of the power outage scenario, unresolved generator breakout noise, unassessed data hall breakout noise, missing source contribution information, insufficient LAmax and low-frequency analysis, and reliance on indicative mitigation.

Acoustic Dynamics concludes that the SLR report does not contain sufficient information to determine whether the proposed development can achieve acoustic compliance or avoid unacceptable acoustic impacts at the most affected receivers.

For these reasons, we object to the proposal and request that NSW Planning require a substantially revised, independently verified and re-exhibited Noise and Vibration Impact Assessment before the application is determined.