ACOUSTIC ADVICE



220001 - Pilu, 80 Undercliff Road, Freshwater - Review of Amplified Music - R1

TO: Marilyn Annecchini DATE: 24 May 2025

COMPANY: Pilu

EMAIL: marilyn@pilu.com.au **FROM:** Matthew Furlong

SUBJECT: Pilu, 80 Undercliff Road, Freshwater – Review of Amplified Music

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Pulse White Noise Acoustics Pty Ltd (PWNA) has been requested to undertake a review of the proposed amplified music to be conducted at Pilu Freshwater located at 80 Undercliff Road, Freshwater.

As part of this review, PWNA have previously prepared an *Acoustic Assessment* for the site previously, submitted as part of DA2024-0946 (reference 220001 - Pilu, 80 Undercliff Road, Freshwater – Acoustic Assessment – R5, dated 7^{th} March 2025). The assessment previously conducted by PWNA established rating background noise levels and associated acoustic criteria for neighboring receivers. For reference, acoustic criteria applicable to operational noise (music and patrons) are re-produced below.

Figure 1 Extract – PWNA Acoustic Assessment – DA/2024-0946 – Acoustic Criteria – Section 5.1.3

Time Period	Parameter 1	Octave Band Centre Frequency, Hz										
		31.5	63	125	250	500	1k	2k	4k	8k	– dBA	
7:00am to	Before Midnight Period (BG+5 dBA)											
6:00pm	Measured L _{A90} ¹	60	52	53	54	54	52	47	41	27	56	
	Criteria L _{A10} ²	69 ³	57	58	59	59	57	52	46	32	61	
6:00pm to 10:00pm	Before Midnight Period (BG+5 dBA)											
	Measured L _{A90} ¹	58	51	53	54	54	51	47	39	24	56	
	Criteria L _{A10} ²	69 ³	56	58	59	59	56	52	44	29	61	
10:00pm to	Before Midnight Period (BG+5 dBA)											
12:00am (Midnight)	Measured L _{A90} ¹	57	49	51	53	53	51	46	37	21	55	
(· ······	Criteria L _{A10} ²	69 ³	54	56	58	58	56	51	42	26	60	
considerati Note 2 The sound	noise level is representa ion), or simply the back I pressure level that is e adjusted to match the t	ground lev exceeded fo	el. r 10% o	of the time	for which	the giver	n sound i	s measure	ed.	he source	under	

Regarding the review of amplified music onsite, PWNA has been requested to undertake a review of the following:

- Use of amplified music externally within the **Middle and Lower External Terraces**:
 - Up to twice a day, as follows:
 - Time slot one (1); between 11:00am and 1:30pm.
 - Time slot two (2); between 4:30pm and 7:00pm.
 - The use of amplified music on the external terraces would solely be for the purposes of a ceremony (typically accompanying weddings).
 - For this assessment, we have assumed a noise level of 73 dBAL_{A10} @ 3m from the speaker (equal to a Sound Power Level of 90dBA).

Note: The assumed noise level of the speaker externally is identical to the assumptions made originally in the PWNA assessment submitted acoustic report (DA/2024-0946) – No change.

- Within indoor dining areas amplified music is proposed until 11:00pm subject to:
 - o All windows and doors are to be closed.
 - Internal noise levels within the venue are not to exceed 90dBA L_{A10} (Sound Pressure Level – average within space).

Based on the parameters detailed above the following predicted noise levels are noted.

Table 1 Predicted Noise Levels – Amplified Music – External Terraces

Parameter		Octave Band Centre Frequency, Hz									
		31.5	63	125	250	500	1k	2k	4k	8k	— dBA
Predicted L _{A10} Noise Levels		27	42	55	54	54	49	47	40	27	55
L&G NSW criterion	Day: (7:00am to 6:00pm Period)	69	57	58	59	59	57	52	46	32	61
	Evening: (6:00pm to 10:00pm Period)	69	56	58	59	59	56	52	44	29	61
Compliance		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note: As shown above, a speaker producing 73dBA L_{A10} @ 3m from the speaker results in <u>FULL COMPLIANCE</u> with the relevant acoustic criteria. Therefore, acoustically can be fully supported.

Table 2 Predicted Noise Levels – Amplified Music – Within Main Building

Parameter		Octave Band Centre Frequency, Hz									
		31.5	63	125	250	500	1k	2k	4k	8k	– dBA
Predicted L _{A10} Noise Levels		<13	<28	<41	<39	<39	<34	<33	<28	<20	<41
L&G NSW criterion	Day: (7:00am to 6:00pm Period)	69	57	58	59	59	57	52	46	32	61
	Evening: (6:00pm to 10:00pm Period)	69	56	58	59	59	56	52	44	29	61
	Early Night: (10:00pm to 12:00am period)	69	54	56	58	58	56	51	42	26	60
Compliance		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note: As shown above, noise levels of 90dBA L_{A10} sound pressure within the space (average) results in <u>FULL COMPLIANCE</u> with the relevant acoustic criteria. Therefore, acoustically can be fully supported.

Table 3 Predicted Noise Levels - Amplified Music - Pavilion Building

Parameter		Octave Band Centre Frequency, Hz									
		31.5	63	125	250	500	1k	2k	4k	8k	- dBA
Predicted L _{A10} Noise Levels		<44	<44	<53	<58	<51	<44	<34	<27	<11	<52
L&G NSW criterion	Day: (7:00am to 6:00pm Period)	69	57	58	59	59	57	52	46	32	61
	Evening: (6:00pm to 10:00pm Period)	69	56	58	59	59	56	52	44	29	61
	Early Night: (10:00pm to 12:00am period)	69	54	56	58	58	56	51	42	26	60
Compliance		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note: As shown above, noise levels of 90dBA L_{A10} sound pressure within the space (average) results in <u>FULL COMPLIANCE</u> with the relevant acoustic criteria. Therefore, acoustically can be fully supported.

Based on the information above, PWNA can fully support the proposed use of amplified music within the lower and middle external terrace and amplified music within indoor dining areas (assuming the parameters detailed above).

We can confirm full compliance with the legislative acoustic requirements formulated in the previously prepared PWNA *Acoustic Assessment* (reference *220001 – Pilu, 80 Undercliff Road, Freshwater – Acoustic Assessment – R5*, dated 7th March 2025) are achieved.

Based on these changes, the proposed modifications therefore necessitate amendments to Condition 24 of the Development Consent DA2025/222645 which are identified below. Words proposed to be deleted are shown in strike through and words to be inserted are shown in **bold italics.**

24. Noise management

The restaurant is to be operated in accordance with the following:

 Any amplified music must be limited as follows: to, and restricted during the hours of 10:00am and 10:00pm. Noise levels to be limited to 90 dBA Sound Power Level (or equal to 73 dBA @ 3m) when measured as a sound pressure level.

For the Lower and Middle Outdoor Terrace areas:

- Exclusively in association with a ceremony, for up to two occasions per day, being held between 11:00am and 1:30pm AND between 4:30pm and 7:00pm.
- Music is limited to 73dBA @ 3m L_{A10} from any speaker (equal to Sound Power 90dBA).

For Indoor Dining areas:

- 90dBA La10 (Sound Pressure Level)
- Until 11pm daily (except for New Years eve).
- All doors and windows must be closed during amplified music, doors and windows are permitted to be open during background music as per below.
- No outdoor amplified music.
- Outdoor background and/or acoustic (non-amplified) music is limited to 10pm.
- Background music is assumed to be 65 dBA for dining areas, all measured as a sound pressure level.
- All doors and windows are to remain shut after 10:00pm and not opened before 7:00am and anytime amplified music is used. Low level background music is permitted to be played with windows and doors open.
- Removal of glass or waste should be done internally and must not be externally of the premises after 8:00pm and before 7:00am.
- Signs must be displayed at all exits reminding patrons to be mindful of noise when leaving the premise.
- A revised Plan of Management (PoM) is to be prepared based on the following conditioned amendments:

- Amended Operating Hours
- > Amplified and non-amplified and background music requirements
- > Opening of windows **and doors**
- A contact number must be displayed for the purposes of receiving any complaints if they arrive.
- > A copy of Pom to be available on restaurant's webpage.

The PoM should be sent to Council and approved prior to operating under this consent. The PoM is to reviewed regularly to ensure any required updated proposed for approval by Council.

Reason: To maintain reasonable levels of amenity to residential neighbouring properties.

For any additional information please do not hesitate to contact the person below.

Regards,

Matthew Furlong Principal Acoustic Engineer

Pulse White Noise Acoustics Pty Ltd

AAS Member and AAAC Member Firm