

20250339.1/1504A/R0/SJ

15/04/2025

Xtra Manly Pty Ltd
1/43 Crescent Street
ROZELLE NSW

Attn: Simon Hamilton

Xtra Clubs Manly - Noise Impact Assessment**1 INTRODUCTION**

Acoustic Logic has been engaged to assess operational noise impacts associated with proposed Xtra Club to be located at 32 The Corso, Manly.

The proposed development consists of a commercial health and wellness development consisting of saunas, hot and cold pools, and other miscellaneous treatments. Hours of operation are proposed to be 6am to 11pm Monday through Sunday, for all days of the year.

The following planning instruments and guidelines have been used in the assessment:

- NSW Environmental Protection Authority (EPA) document – '*Noise Policy for Industry*' ("*NPfl*") 2017
- Architectural Plans provided by Studio P Architecture & Interiors (dated 2nd April 2025).

The following nearby sensitive receivers to the site are noted –

- C1 – Adjacent retail tenancies located on The Corso, Manly
- C2 – Retail tenancies located opposite proposed site on The Corso, Manly
- R1 – Multilevel residential receivers located at 5-9 Wenworth Street, Manly
- R2 - Multi level residential receivers located at 2-8 Darley Road, Manly
- R3 – Four storey residential receivers located at 8-28 The Corso, Manly

2 NOISE EMISSIONS CRITERIA

Rating background levels have been determined from the NPfl minimum background noise levels. It is noted that based on previous monitoring conducted by this office at the project site background noise levels are likely to be significantly higher than minimum assumed levels, and as such the project trigger levels determined below are highly conservative. The NPfl day, evening and night periods are:

- Day - period from 7 am to 6 pm Monday to Saturday or 8 am to 6 pm on Sundays and public holidays
- Evening - the period from 6 pm to 10 pm
- Night - the remaining periods

The following table summarises the rating background noise levels determined for the day, evening and night periods as defined in the NPfl.

Location	Measured Noise Levels (dB(A) L ₉₀)		
	Day	Evening	Night
R1-R3	35 dB(A) L ₉₀	30 dB(A) L ₉₀	30 dB(A) L ₉₀

The Noise Policy for Industry (NPfl) provides a methodology for assessing the need for noise mitigation:

- Determine project specific "trigger" levels.
- Predict noise emissions to surrounding properties and assess against the trigger levels.
- Noise mitigation should be assessed when the predicted noise emissions exceed the trigger levels.

In this assessment, the trigger levels determined using the NPfl will be adopted as assessment criteria for permanent plant and equipment. The EPA NPfl has three sets of criteria which are all required to be satisfied, namely "intrusiveness", "amenity" and "maximum noise levels". Intrusiveness and amenity are generally assessed at the most affected part of the property, or at the balcony or façade of an apartment or upper level of residence. Maximum noise levels are generally assessed outside bedroom windows.

Intrusiveness

The guideline is intended to limit the audibility of noise emissions at residential receivers only. Noise emissions measured using the L_{eq} descriptor should not exceed the background noise level by more than 5dB(A).

Amenity

The guideline is intended to limit the absolute noise level from all “industrial” noise sources so that it is consistent with the general environment. Table 2.2 of the NPfI sets out acceptable noise levels for various land uses.

The most stringent criteria noted above has been selected and summarised in the following table, with selected criteria boldened.

Receiver	Time Period	Background Noise Level (NPfI Minimums) dB(A) $L_{eq(15min)}$	Intrusive Level dB(A) $L_{eq(15min)}$	EPA Amenity Levels dB(A) $L_{eq(15min)}$
R1-R3	Day	35	40	48
	Evening	30	35	42
	Night	30	35	38
C1-C2	When in use		N/A	63

3 NOISE EMISSIONS ASSESSMENT

Plant to be assessed includes ventilation plant, condenser units, pool pumps and chillers. All new plant is proposed to be located internally. Noise emissions from mechanical plant were assessed to the night period (worst case operating scenario) with all mechanical plant assumed operational.

Xtra clubs are proposing to operate as a chain of health/wellness centres, with similar offerings/services to be present in each location. For ease and simplicity of construction mechanical plant design is to be kept consistent between sites. As such, a noise survey of an existing Xtra Club site has been conducted by this office to determine indicative sound power levels of plant to be installed in future Xtra Clubs sites.

3.1 EXISTING XTRA CLUB SITE/NOISE SURVEY

Acoustic Logic attended the existing and previously approved Xtra Club Bondi site on the 11th of October 2024 to determine indicative sound power levels of plant to be installed in future Xtra Clubs sites. This included noise measurements of pool pumps, ventilation plant and pool chiller units. The development does not have PA systems or any other noise generative mechanical plant.

Noise measurements were obtained using a Norsonics 140 Type 1 Sound Level Analyser, set to A-weighted fast response. The sound level meter was calibrated before and after the measurements using a Norsonics 1251 Sound Level Calibrator. No significant drift was recorded. Measured noise levels are summarised below.

Plant Item Measured	Measured Noise Level L_{eq} dB(A)
3 Chiller Units – Internally located in Garage	71 @ 5m
Pool Pumps - Internally located in Garage	≤61 @ 5m (Inaudible with Chiller Units Operating)
Internal Measurement – Ventilation/Background Music/Patron noise	64
AHU – Internally Located in Plant Room	64 @ 1m

3.2 PROPOSED XTRA CLUB MANLY NOISE EMISSIONS

An assessment of noise emissions associated with proposed pool chillers/heaters, ventilation plant, pool pumps and condenser unit plant has been conducted. New plant is to be located internally within a plant room.

One chiller unit has been selected in the preliminary selection of mechanical plant. The following noise data associated with the proposed chiller unit has been sourced and utilised for this assessment –

Frequency (HZ)	63	125	250	500	1000	2000	4000	8000
Sound Power Level (dB)	79	74	69	66	64	60	57	51

The following modelling parameters for new plant were utilised:

- Plant room to be located on the ground floor of the Xtra Club. The plant room is to be ventilated through ducting to the roof level.
- Ducting is to be internally lined with 50mm thick glasswool insulation
- Chiller sound power level in accordance with the above table. A total of 1 chiller unit to be utilised as notified by client.
- An internal noise level with background music, patrons and ventilation fans on of 64 dB(A).
- A pool pump sound pressure level of 61 dB(A) at a distance of 5 metre has been utilised, as previously measured on site.

3.2.1.1 Operational Noise Level Predictions

Receiver	Time of day	Predicted Noise Level $dB(A)L_{eq(15-min)}$	Project Specific Criteria $dB(A)L_{eq(15-min)}$	Compliance
R1-R3	All	<30	35	Yes
C1-C3		<30	63	

3.3 RECCOMENDATIONS

The above noise level predictions are based on the following recommendations -

- New plant is to be internally located within the ground floor enclosed plant room.
- Plant room is to be ventilated through ductwork routed to the roof of the development. The ductwork should be internally lined with minimum 50mm thick perforated glasswool insulation or the like.
- All doors and operable windows are to be kept closed during evening and night periods.
- Entry doors are to be fitted with a closing mechanism to ensure that the door is not kept open. The closing mechanism should be of a smooth design to avoid intermittent noise associated with opening/closing of doors.
- Amplified music within the club is to be kept to a background noise level. It is noted that based on the use of the club and this offices measurements of existing Xtra Clubs loud amplified music is unlikely to be utilised.

4 CONCLUSION

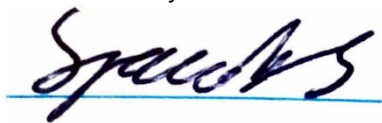
Acoustic Logic has been engaged to assess operational noise impacts associated with proposed Xtra Club to be located at 32 The Corso, Manly.

The proposed development consists of a health and wellness development consisting of saunas, hot and cold pools, and other miscellaneous treatments. Hours of operation are proposed to be 6am to 11pm Monday through Sunday, for all days of the year.

Operational noise is expected to be at or below project trigger levels based on minimum assumed background noise levels, provided the recommendations detailed in section 3.3 are followed.

We trust this information is satisfactory. Please contact us should you have any further queries.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'Scott Jacobs', is written over a horizontal blue line.

Acoustic Logic Pty Ltd
Scott Jacobs