

Air Noise Environment Pty Ltd

Unit 3, 4 Tombo Street
Capalaba
QLD 4157
T: 07 3245 7808
F: 07 3245 7809
E: ane@ane.com.au

ACN 081 834 513
ABN 13 081 834 513

Ricgrowers Limited
57 Yanco Ave
Leeton
NSW 2705

23 October 2020

Ref: 6066-Noisereplet-20201023_01.1.odt

Dear CopRice

RE: RESPONSE TO VIC EPA QUERIES - NOISE ASSESSMENT, PROPOSED PET FOOD MANUFACTURING FACILITY, WANGARATTA

This report letter presents a comparison of the predicted noise levels against the recalculated noise criteria using the methodology defined in State Environment Protection Policy (Control of Noise from Industry, Commerce and Trade) No. N-1 (SEPP N-1). The previous noise assessment issued on 6 April 2020¹ utilised noise criteria derived from the VIC EPA Publication 1411 - Noise from Industry in Regional Victoria. Based on feedback from the VIC EPA, it is understood that, as the site is within a designated Major Urban Area, the SEPP N-1 noise criteria derivation methodology is applicable.

The updated criteria is presented in Table 1. Details of the derivation are presented in the attached Appendix. Receptor groups are as identified in Figure 5.1 of the original noise assessment.

Table 1: Updated Assessment Criteria - L_{Aeq} (dB(A))

Time Period	RG1 (Northern Houses)	RG2 (Southern Houses)
Day	50	55
Evening	44	50
Night	39	46

Day = 7 am to 6 pm Monday to Friday, 7 am to 1 pm Saturday
Evening = 6 pm to 10 pm all days, 1 pm to 6 pm Saturday, 7 am to 6 pm Sundays and public holidays
Night = 10 pm to 7 am all days.

1 Air Noise Environment, Noise Assessment - Proposed Pet Food Manufacturing Facility, Wangaratta, 6 April 2020, Ref: 6066-noise-report-01.odt.



Table 2 presents the results of the modelling compared to the updated noise criteria. The results demonstrate compliance with the relevant noise criteria for the day, evening and night periods. This is noted to be the same conclusion as presented in the original noise assessment.

Table 2: Predicted Noise Levels Compared Against Updated Criteria

Receptor Group	Predicted L_{Aeq} Noise Level dB(A)	Updated Noise Criteria
RG1 (Northern Houses)	36	Day - 50 Evening - 44 Night - 39
RG2 (Southern Houses)	43	Day - 55 Evening - 50 Night - 46

Please feel free to call me if you have any queries regarding the items addressed in this letter.

Yours sincerely

for Air Noise Environment Pty Ltd

Samuel Wong BEng(Chem), MAAS

Senior Environmental Engineer

Attachments:

- Appendix - SEPP N-1 NOISE CRITERIA DERIVATION

Note: All professional advice provided by Air Noise Environment, including any information contained in this letter, is subject to the terms of the Disclaimer shown on our website at www.ane.com.au/disclaimer.html



APPENDIX - SEPP N-1 NOISE CRITERIA DERIVATION

The relevant environmental noise criteria for the operation of fixed ventilation plant is found in the *State Environment Protection Policy (Control of Noise from Industry, Commerce and Trade) No. N-1 No. S31* (abbreviated as SEPP N-1) and subsequent variations (No. G37 and No. S183). The policy is adopted in metropolitan Melbourne and Major Urban areas, and aims to protect people from the effects of commercial, industrial and trade noise.

Noise limits are established by first deriving a zoning noise level (ZL) for the sensitive receptor area under investigation. The zoning level is dependent on the total area of Type 2 and Type 3 land uses inside 140 metre and 400 metre concentric circles, centred on the sensitive receptor. Type 2 and Type 3 land uses are defined in the document “*Designation of types of zones and reservations in the metropolitan region planning schemes for the purposes of State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1*”. Type 2 and 3 land uses must be determined using the relevant local planning scheme zoning maps and generally include industrial and commercial zones.

The equations for defining the zoning level are as follows (Schedule B of SEPP N-1):

- Day Zoning Level = $18 \times \text{Influencing Factor} + 50$;
- Evening Zoning Level = $17 \times \text{Influencing Factor} + 44$;
- Night Zoning Level = $17 \times \text{Influencing Factor} + 39$;
- Where Influencing Factor = $0.25 \times \text{sum of Type 2 area fractions of both concentric circles} + 0.5 \times \text{sum of Type 3 area fractions of both concentric circles}$.

The greater the area of commercial and industrial zones in proximity to the receptor, the higher the associated zoning level (and vice versa).

The zoning level is then compared to existing background (BG) noise levels at the sensitive receptor to derive the relevant noise limits. The following rules for establishing noise limits are:

Table 3: SEPP N-1 Noise Criteria Derivation

Applicable Noise Criteria	When to Adopt
<i>Day period</i>	
Zoning Level	If BG is 6-12 dB below ZL
BG + 6	If $BG + 6 > ZL$
$0.5(ZL + BG) + 4.5$	If ZL is 13 dB or more than BG
<i>Evening and Night period</i>	
Zoning Level	If BG is 3-9 dB below ZL



Applicable Noise Criteria	When to Adopt
BG + 3	If $BG + 3 > ZL$
$0.5(ZL + BG) + 3$	If ZL is 10 dB or more than BG

The noise limit shall not be less than 45 dB(A), 40 dB(A) and 35 dB(A) for the day, evening and night periods, respectively.

To derive noise criteria for the assessment in accordance with the SEPP N-1 methodology, the following sources of information have been referred to:

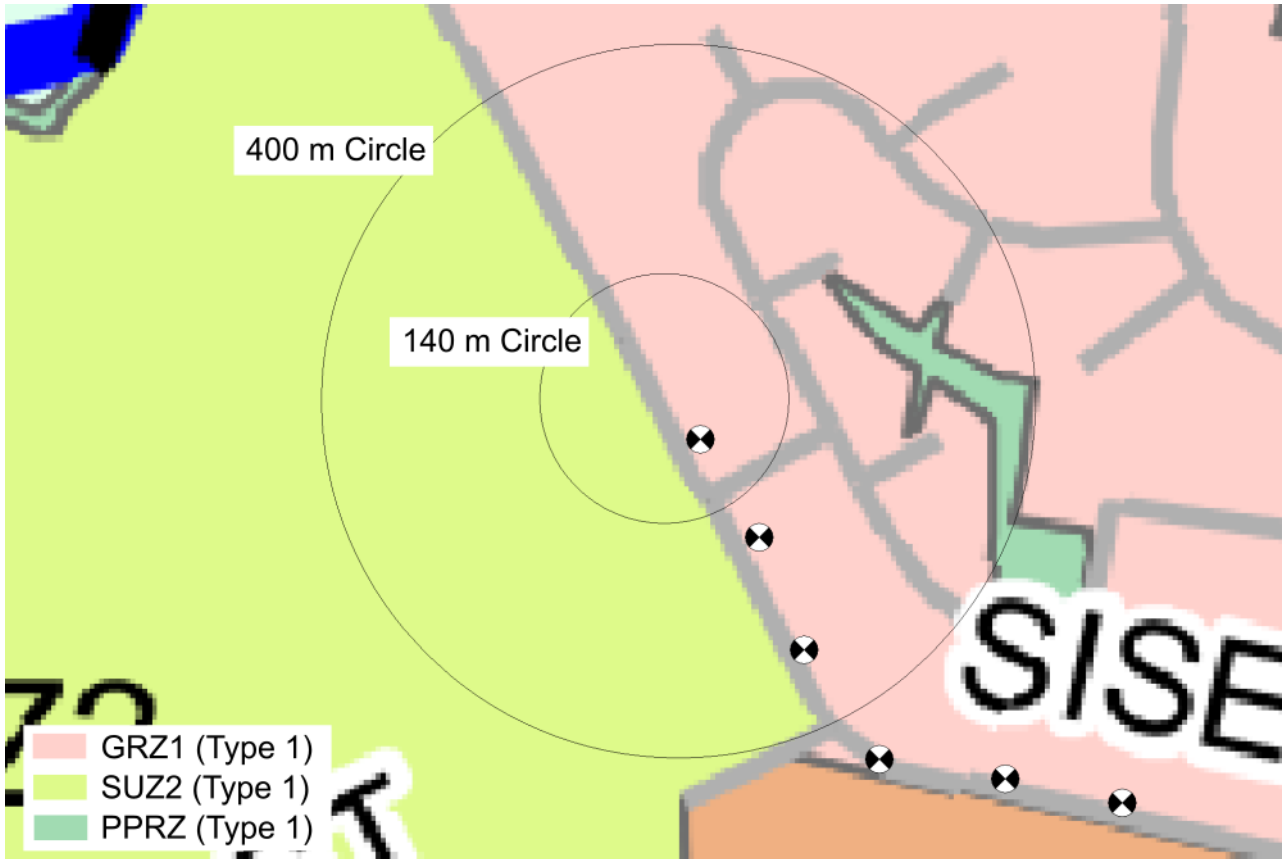
- Wangaratta Planning Scheme zoning maps (as presented on VicPlan website);
- Background noise monitoring as presented in Section 3 of the original noise assessment².

Figures 1 and 2 present the noise criteria derived for each receptor group.

² Air Noise Environment, Noise Assessment – Proposed Pet Food Manufacturing Facility, Wangaratta, 6 April 2020, Ref: 6066-noise-report-01.odt.



Figure 1: SEPP-N1 Noise Criteria for Northern Receptors (Receptor Group 1)



Note: The circles were conservatively selected such that only Type 1 zones are covered, resulting in a zero influencing factor and more conservative criteria.

Receptor / Period	Influencing Factor	Zoning Level (ZL)	Background Noise Level (BG)	BG - ZL	Noise Criteria ^a
Day	0	50	38	-12	50
Evening		44	38	-6	44
Night		39	36	-3	39

^a The Background Levels are considered neutral, therefore, the Zoning Levels represent the noise criteria

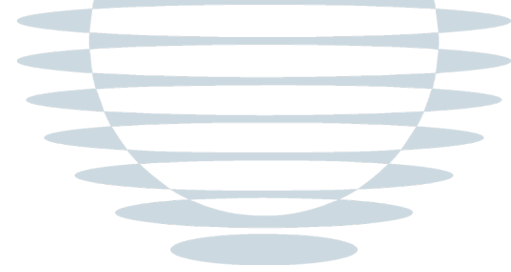
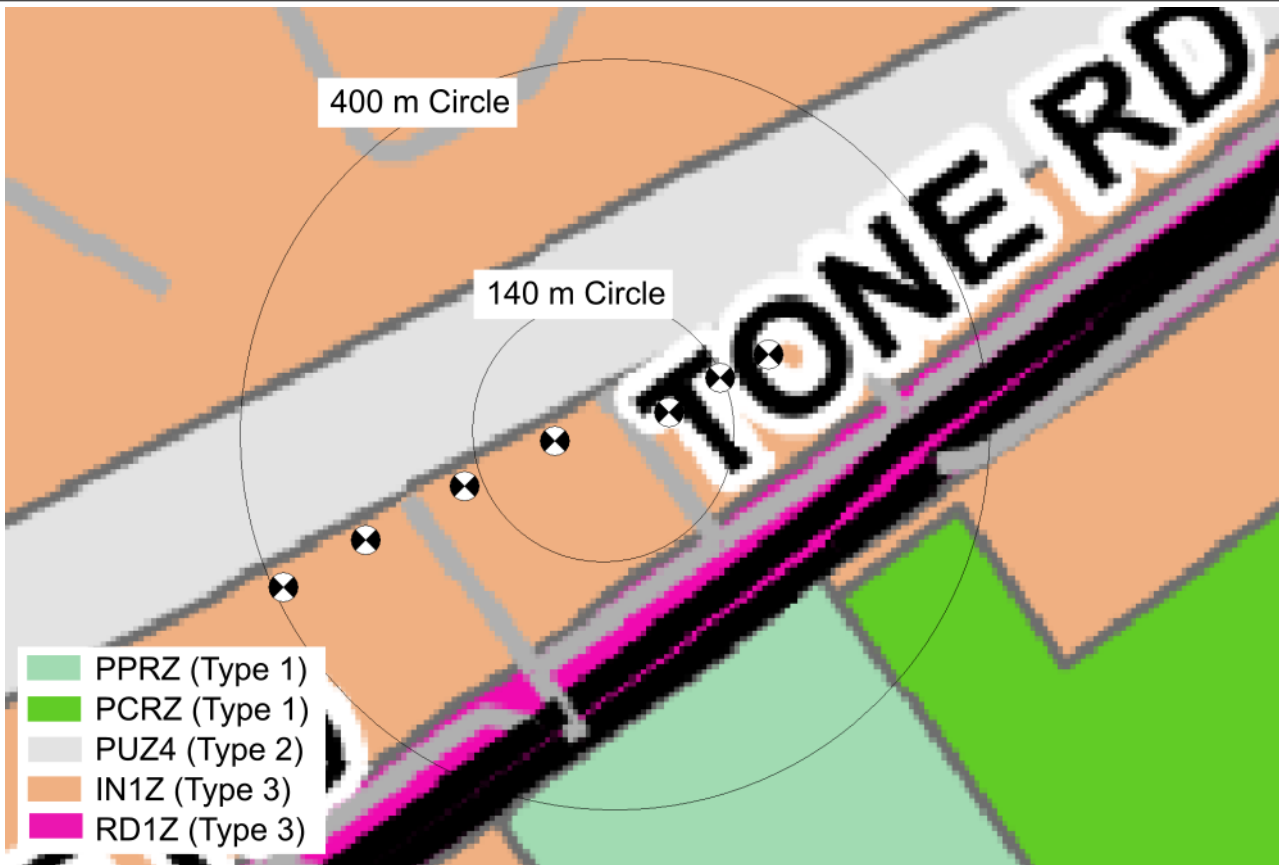


Figure 2: SEPP-N1 Noise Criteria for Southern Receptors (Receptor Group 2)



Receptor / Period	Influencing Factor	Zoning Level (ZL)	Background Noise Level (BG) ^a	BG - ZL	Noise Criteria ^b
Day	0.68	62	38	-24	55
Evening		56	38	-16	50
Night		51	36	-15	46

^a Background noise monitoring has not been undertaken at Receptor Group 2 (southern houses). As a conservative approach, the background levels measured at Receptor Group 1 (northern houses) has been adopted. Given RG2 is close to existing industry, it is expected that background levels would be higher than at RG1.

^b Since the Background Levels are 13 dB or more lower than the Day Zoning Level and 10 dB or more lower than the Evening/Night Zoning Level, then the SEPP N-1 Schedule B3.2 Low Background Level rules apply.