

20171369.3/2609A/R1/GW

26/09/2019

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**IVANHOE ESTATE, MACQUARIE PARK - RESPONSE TO SUBMISSION NO.2 -REVISED
MASTERPLAN DA**

This letter presents our review and response to the comments by EPA for Ivanhoe Masterplan Response to Submission No.2

1) Background Noise Assessment

EPA Comments:

Appendix A of the RtS notes the EPA's advice that the proponent is a 'public authority', and the EPA has provided appropriate noise assessment guidance material to all public authorities, being the Noise Policy for Industry.

The EPA emphasises that background noise measurement is fundamental to a consistent approach to the quantitative assessment of noise impacts of development. Those background noise levels are used to set the trigger levels for both construction and operational noise. Therefore, the EPA considers that properly establishing background noise levels is critical to the assessment and management of noise for the entire project and each stage thereof.

The EPA's EIS submission commented that background noise monitoring was not conducted in accordance with the Noise Policy for Industry (EPA, 2017) and that the proponent is required to establish background noise levels in accordance with Fact Sheet A and B of that Policy.

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The EPA's view is that the RtS and Appendix W 'Ivanhoe Estate, Macquarie Park Revised Masterplan DA' (i.e. acoustic assessment report 20171369.3) do not adequately address the EPA's previous concerns about the background noise assessment.

ALC's Review and Response:

Six noise monitors have been setup to record the existing background noise levels around project site with monitor locations detailed below:



Figure 1: Site Map and Noise Monitor Locations

● Unattended noise monitor locations

▲ Manned noise monitor locations

The RBL for each noise monitor has been processed based on requirements of NPfI, noise and weather data have been graphed and attached to this report. The summarised ABL/RBL for each monitor has been detailed below:

Table 1 – RBL of Noise Measurements

Location	Date	ABL		
		Day	Evening	Night
#1	25.10.2017	-	56	35
	26.10.2017	59	58	-
	27.10.2017	60	56	39
	28.10.2017	57	56	41
	29.10.2017	53	55	38
	30.10.2017	-	-	39
	31.10.2017	-	-	37
	RBL	58	56	38
#2	11.09.2017	-	55	38
	12.09.2017	57	56	38
	13.09.2017	-	55	41
	14.09.2017	-	56	39
	15.09.2017	58	55	39
	16.09.2017	-	54	40
	17.09.2017	52	53	37
	18.09.2017	56	55	38
	RBL	56	55	39
#3	25.10.2017	-	-	37
	26.10.2017	57	55	-
	27.10.2017	-	53	38
	28.10.2017	54	52	39
	29.10.2017	51	51	38
	30.10.2017	-	-	41
	31.10.2017	-	-	39
	RBL	54	53	38
#4	25.10.2017	-	50	35
	26.10.2017	56	53	-
	27.10.2017	-	51	36
	28.10.2017	53	48	38
	29.10.2017	46	46	38
	30.10.2017	-	-	38
	31.10.2017	-	-	36
	RBL	53	50	37

#5	11.09.2017		39	35.5
	12.09.2017	41	43	35
	13.09.2017	45	38	34
	14.09.2017	46	39	34
	15.09.2017	42	38	33
	16.09.2017	40	41	34
	17.09.2017	38	38	35
	18.09.2017	42	39	
	RBL*	42	39	34
#6	25.10.2017		45	42.4
	26.10.2017	46	46	47
	27.10.2017	50	47	43
	28.10.2017	44	45	45
	29.10.2017	44	46	46
	30.10.2017	47	48	43
	31.10.2017	46	43	41
	RBL	46	46	43

Note: The lowest RBL (location #5) has been adopted in DA report for setting up noise emission criteria.

I have reviewed Fact Sheet A of NPfI and the findings are summarised below based on Table A1 (Page 47 of NPfI):

Table 2 – Determining Background Noise

Features	Method	Comply ?
When to Use	During planning and approval stage where there is significant potential for noise impact, e.g. extractive industries and industrial developments. Note: Would normally be required where a background level exceeding the minimum rating background noise levels (in any time period) has been adopted in the assessment	Yes, used 6 monitors
Type of Monitoring	Continuous sampling accompanied by periods of operator-attended monitoring	Yes, they are all continuous sampling
Length of monitoring	Equivalent to one week's worth of valid data covering the days and times of operation of the development (see Section A5).	Yes, more than one week
Conditions for monitoring	Average wind speed < 5 m/s1, no rain, no extraneous noise (see Sections A1.2 and A4).	Yes, weather data has been provided and weather affected data has been excluded for assessment
Monitoring Location	Reasonably most- or potentially most-affected residence(s).	Yes, no access to residential receivers across Epping Road, we adopted background noise level at Location 5 which is the lowest level to setup noise emission limit which should be regarded as conservative.
Assessment time periods	Day (7 am–6 pm) Evening (6 pm–10 pm) Night (10 pm–7 am) (see Section A3 for exceptions)	Yes, detailed in Table 1
Base measure	LA _{90,15min}	Yes
Analysis method	Determine the assessment background level for each day, evening and night by using the 10th percentile method ² . The rating background noise level is the median assessment background level over all days for each period. Note: Current generation noise logging instrumentation with high sampling rates and increased storage capabilities allows for the calculation of LAF _{90,(day/evening/night)} dB(A) noise levels. These period LA ₉₀ levels may be adopted as the ABL for the purposes of calculating the rating background noise level.	Yes, detailed in Table 1

2) The EPA's submission raised concerns that the EIS did not address impacts from all the development's proposed land uses. Appendix W does not adequately address potential noise impacts from proposed land uses across the estate, including:

- (a) the assumption that activities at the proposed school would be restricted to the day time assessment period (noting Government policy encouraging out of hours community use of school facilities);*
- (b) the operation of the community centre, retail and cafes as potential noise sources; and*

ALC response to (a) & (b): No detailed layouts /operational information available at this stage. It is recommended to Condition the noise limits and detailed noise controls can be determined at CC stage.

- (c) incorrectly proposing the maximum noise level event assessment trigger level for $L_{Aeq,15min}$ in Table 15 instead of deriving the trigger levels in accordance with Section 2.5 of the Noise Policy for Industry.*

ALC response to (c):

It is noted that EPA NPfl requires below:

- $L_{Aeq, 15min}$ 40 dB(A) or the prevailing RBL plus 5 dB, whichever is the greater, and/or
- L_{AFmax} 52 dB(A) or the prevailing RBL plus 15 dB, whichever is the greater,

However, the point 1 above is also governed by intrusiveness criteria which is RBL + 5 dB(A) only. As RBL during night time is 34 dB(A) and considering the requirements of intrusiveness I adopted RBL + 5 dB(A)= 39 dB(A) $L_{eq, 15min}$ instead of 40 dB(A) $L_{eq, 15min}$ to provide conservative assessment which should be acceptable.

Updated acoustic report has been attached.

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

Yours faithfully,

Acoustic Logic Consultancy Pty Ltd
George Wei