Aglime of Australia

SCREENING NOISE MANAGEMENT PLAN (SNMP)

Lancelin

[redacted]

Contents

Purpose

The purpose of this Screening Noise Management Plan (SNMP) for Westdeen Holdings Pty Ltd's Lancelin Operations is to establish and maintain effective noise management for proposed screening activities using a screen and stacker on site.

Location

The screen and stacker will be used to screen areas highlighted in yellow in the map below. The residences in Lancelin town are the closest sensitive receptors.

Approved Mining Area (red) and Screening Locations (yellow)

Operating Hours

The screen will only be operated during daylight hours between 6AM and 6PM, from Monday to Friday and Saturday morning until midday.

Equipment

Our head contractor Lancelin Sands have Caterpillar 966 wheeled loaders, a mobile McCloskey S190 screener and a mobile Edge FTS15 stacker. The loader will dig sand and vegetation from the sand face and load the screener, which will then drop the screened sand into the stacker which will then form a stockpile of clean sand to be later loaded into trucks.

McCloskey S190 Screener

Edge FTS15 stacker

Appendix: Herring Storer Acoustics Noise Assessment & Management Plan

AGLIME OF AUSTRALIA

AGLIME LANCELIN MINESITE
LANCELIN

NOISE MANAGEMENT PLAN

JULY 2025

OUR REFERENCE: 34874-1-25224

[redacted]

DOCUMENT CONTROL PAGE

NOISE MANAGEMENT PLAN

AGLIME LANCELIN MINESITE, LANCELIN

Job No: 25224

Document Reference: 34874-1-25224

FOR

AGLIME OF AUSTRALIA

[redacted]

REVISION HISTORY

Revision	Description	Date	Author	Checked

DOCUMENT DISTRIBUTION

[redacted]

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APPENDICES

1. INTRODUCTION

Herring Storer Acoustics was commissioned by Aglime of Australia to assess the noise emissions associated with screening operations at the Aglime Lancelin Minesite. The screening operations are in addition to the existing operations at the site. Noise emissions from these operations are assessed against the *Environmental Protection (Noise) Regulations 1997*.

2. SUMMARY

Noise emissions from the addition of screening operations to the Aglime Lancelin Minesite were assessed against the *Environmental Protection (Noise) Regulations 1997*. Emissions were found to comply with the regulations at all hours. Additional noise management options are provided for information.

3. CRITERIA

The allowable noise level at the surrounding locales is prescribed by the *Environmental Protection (Noise) Regulations 1997*. Regulations 7 & 8 stipulate maximum allowable external noise levels. For residential premises, this is determined by the calculation of an influencing factor, which is then added to the base levels shown below. The influencing factor is calculated for the usage of land within two circles, having radii of 100m and 450m from the premises of concern. For other types of premises (i.e. commercial, industrial and utilities), the allowable or assigned noise levels are fixed for different times of the day.

TABLE 3.1 - BASELINE ASSIGNED OUTDOOR NOISE LEVEL

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		$L_{A\ 10}$	$L_{A\ 1}$	$L_{A\ max}$
Noise sensitive premises: highly sensitive area	0700 - 1900 hours Monday to Saturday (Day)	45 + IF	55 + IF	65 + IF
	0900 - 1900 hours Sunday and Public Holidays (Sunday / Public Holiday Day Period)	40 + IF	50 + IF	65 + IF
	1900 - 2200 hours all days (Evening)	40 + IF	50 + IF	55 + IF
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays (Night)	35 + IF	45 + IF	55 + IF
Industrial and Utility Premises	All Hours	65	80	90

Note: L_{A10} is the noise level exceeded for 10% of the time.
L_{A1} is the noise level exceeded for 1% of the time.
L_{Amax} is the maximum noise level.
IF is the influencing factor.

It is a requirement that received noise be free of annoying characteristics (tonality, modulation and impulsiveness), defined below as per Regulation 9.

"impulsiveness" means a variation in the emission of a noise where the difference between L_{Apeak} and $L_{Amax\ Slow}$ is more than 15 dB when determined for a single representative event;

"modulation" means a variation in the emission of noise that –

(a) is more than 3dB $L_{A\ Fast}$ or is more than 3 dB $L_{A\ Fast}$ in any one-third octave band;
(b) is present for more at least 10% of the representative assessment period; and
(c) is regular, cyclic and audible;

"tonality" means the presence in the noise emission of tonal characteristics where the difference between –

(a) the A-weighted sound pressure level in any one-third octave band; and
(b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands,

is greater than 3 dB when the sound pressure levels are determined as $L_{Aeq,T}$ levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as $L_{A\,Slow}$ levels.

Where the noise emission is not music, if the above characteristics exist and cannot be practicably removed, then any measured level is adjusted according to Table 3.2 below.

TABLE 3.2 - ADJUSTMENTS TO MEASURED LEVELS

Where **tonality** is present	Where **modulation** is present	Where **impulsiveness** is present
+5 dB(A)	+5 dB(A)	+10 dB(A)

Note: These adjustments are cumulative to a maximum of 15 dB.

The nearest noise sensitive sites are the residences within the Lancelin townsite approximately 750m west of the screening operation areas. Specific locations assessed and their influencing factors are listed in Table 3.4 and shown in Figure 3.1. The resultant assigned levels are summarised in Table 3.3.

TABLE 3.3 – ASSESSMENT LOCATIONS AND INFLUENCING FACTORS

Receiver	Location	Industrial within 100m	Influencing Factor
R1	32 Collins Way	-	0
R2	54 Salvair Crescent	-	0
R3	15 Mullins Way	10%	1
R4	10 Kendall Road	20%	2
R5	3 Kendall Road	-	0
R6	73 Casserly Way	-	0

TABLE 3.4 - ASSIGNED OUTDOOR NOISE LEVEL

Receiver	Time of Day	Assigned Level (dB)		
		$L_{A\,10}$	$L_{A\,1}$	$L_{A\,max}$
R1, R2, R5 and R6	0700 - 1900 hours Monday to Saturday (Day)	45	55	65
	0900 - 1900 hours Sunday and Public Holidays (Sunday / Public Holiday Day Period)	40	50	65
	1900 - 2200 hours all days (Evening)	40	50	55
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays (Night)	35	45	55
R3	0700 - 1900 hours Monday to Saturday (Day)	46	56	66
	0900 - 1900 hours Sunday and Public Holidays (Sunday / Public Holiday Day Period)	41	51	66
	1900 - 2200 hours all days (Evening)	41	51	56
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays (Night)	36	46	56
R4	0700 - 1900 hours Monday to Saturday (Day)	47	57	67
	0900 - 1900 hours Sunday and Public Holidays (Sunday / Public Holiday Day Period)	42	52	67
	1900 - 2200 hours all days (Evening)	42	52	57
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays (Night)	37	47	57

Screening operations are a consistent noise source expected to occur greater than 10% of the time, therefore the applicable criteria are the L_{A10} assigned levels.

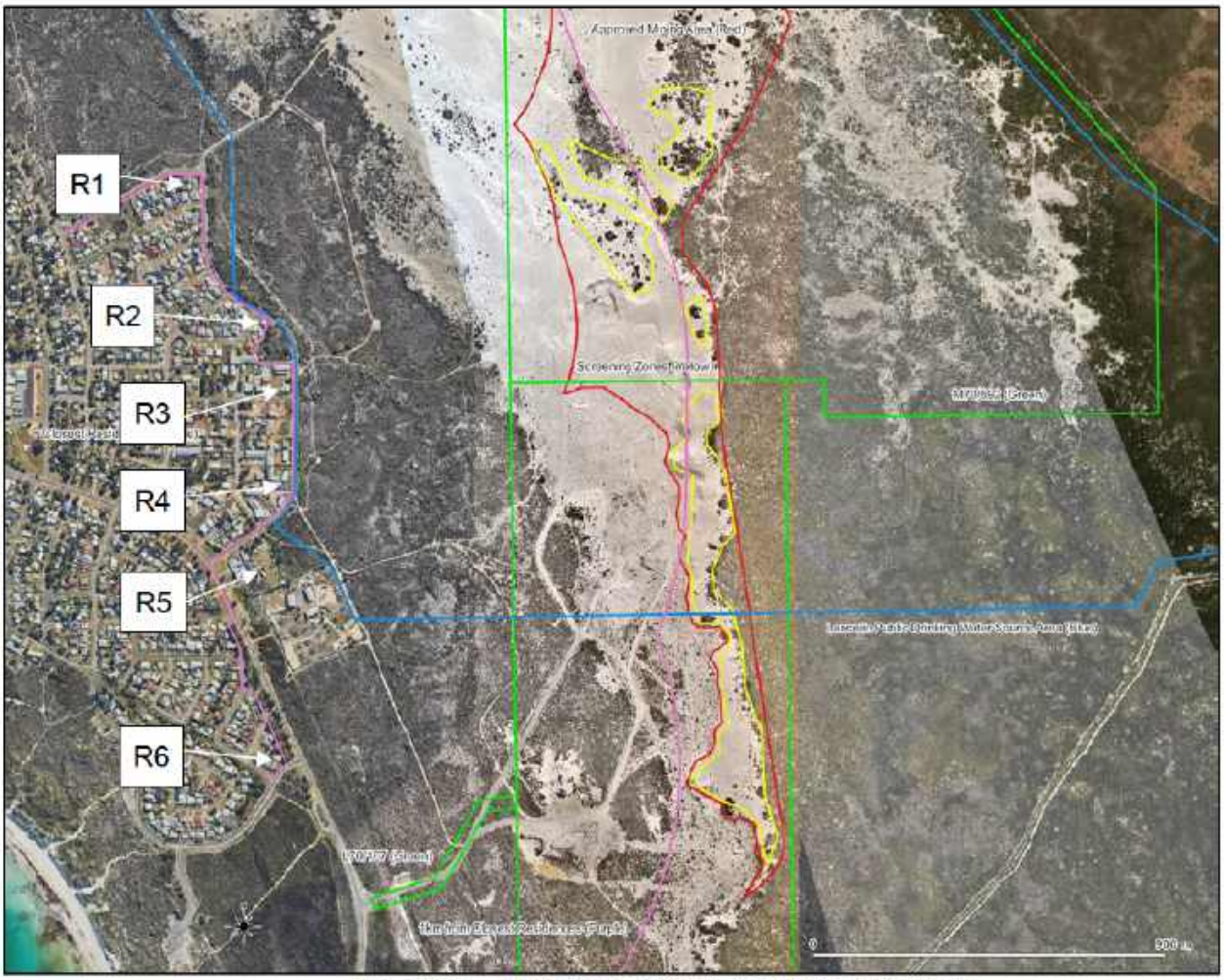


FIGURE 3.1 – AREA MAP – SCREENING AREAS IN YELLOW

4. MODELLING

Noise received at the nearest neighbouring residential premises, due to noise associated with the proposed screening operations, were modelled with the computer programme SoundPlan.

Weather conditions for modelling were as stipulated in the Environmental Protection Authority's "*Draft Guidance for Assessment of Environmental Factors No. 8 - Environmental Noise*" and for the day period are as listed in Table 4.1.

TABLE 4.1 – WEATHER CONDITIONS

Condition	Day
Temperature	20°C
Relative humidity	50%
Pasquil Stability Class	E
Wind speed	4 m/s*

* From sources, towards receivers.

Modelling of the noise emissions has been based on the noise sources and sound power levels listed in Table 4.2 as well as recent topographic data supplied by Aglime dated April 2025.

TABLE 4.2 – NOISE SOURCES

Item	Number	Sound Power Level dB(A)
Screening Plant	1	101
Stacker Loader	1	95
Wheel Loader	1	99

Screening operations were modelled on the base of the dunes within the screening areas shown in Figure 3.1. The maximum noise levels received from screening operations located within this area are listed in Table 4.3 and contours are presented in Appendix A. These values represent the worst-case noise levels received at the receivers.

TABLE 4.3 – MAXIMUM NOISE LEVELS RECEIEVED

Receiver	Noise level dB(A)
R1	29
R2	30
R3	30
R4	29
R5	27
R6	28

5. ASSESSMENT

The applicable assigned levels for the screening operations noise emissions are the L_{A10} criteria. As the night period has the strictest criteria compliance during the night period implies compliance during the other periods. Table 5.1 assess the noise levels received against the Regulations.

TABLE 5.1 – ASSESSMENT

Receiver	Noise level dB(A)	Night L_{A10} Criteria	Compliance
R1	29	35	Complies
R2	30	35	Complies
R3	30	36	Complies
R4	29	37	Complies
R5	27	35	Complies
R6	28	35	Complies

The screen operations comply at all hours at all receivers.

It is possible that the noise emissions, when received at the residences, are tonal in nature. In this case a +5dB adjustment is applied to the noise levels and compliance becomes marginal at R2. Should tonality prove to be a problem noise management options listed in Section 6 should be considered.

6. NOISE MANAGEMENT

While the noise emissions associated with the screening operations comply with the regulations the following noise management options are presented for information.

- Noise barriers. Stacking sand on the west of the operation area to extend the existing dunes that lie between the northern screening areas and the townsite will provide a noise barrier.

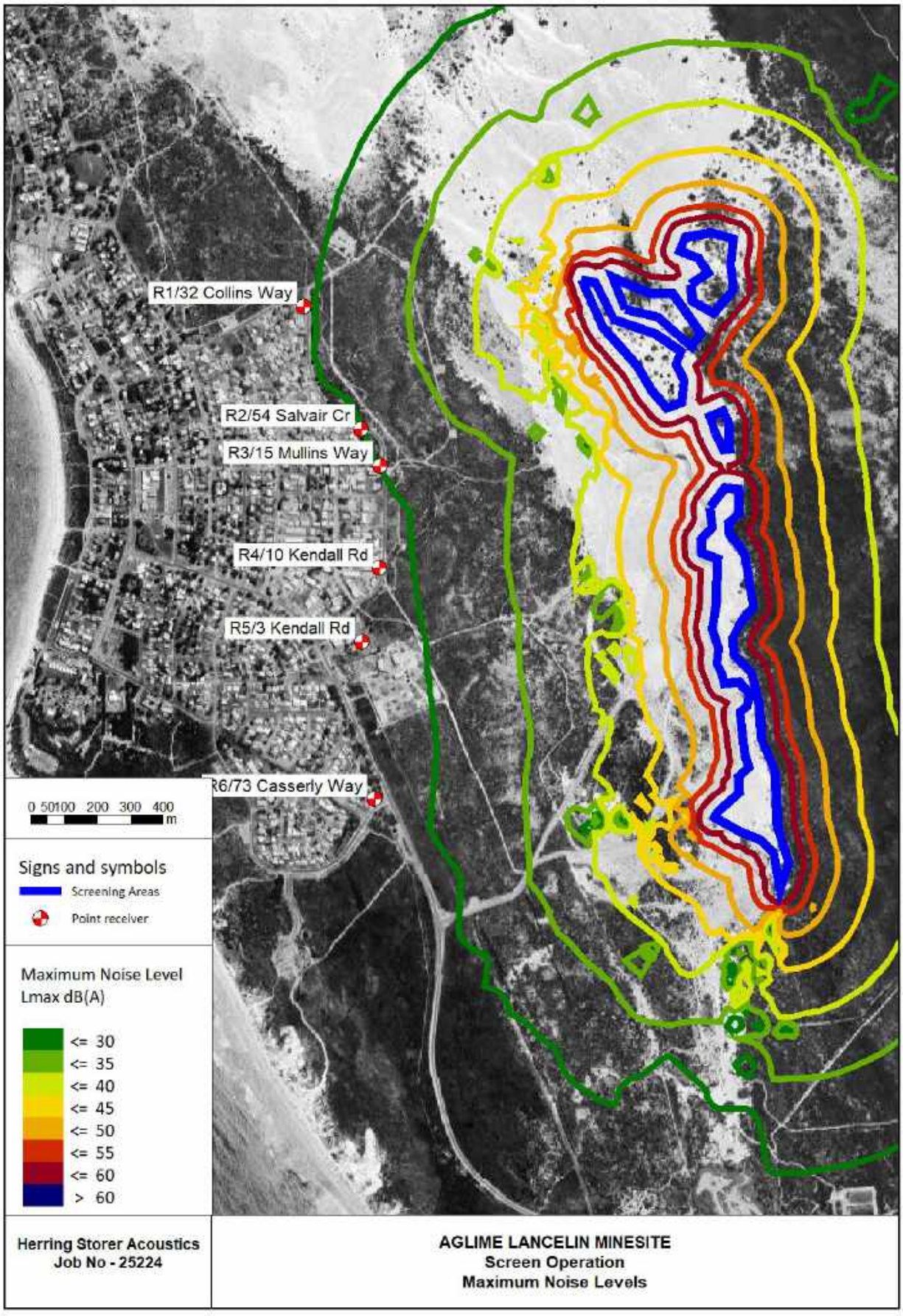
- Hours of operation. Noise emissions have been assessed against the most stringent assessment period of the Regulations. The L_{A10} criteria of the day and evening periods are 10 and 5 dB higher than that of the night. Running the screen only after 7:00 am will provide a greater margin between the level of noise emissions received at the residences and the regulatory criteria.

7. CONCLUSION

Noise emissions from the operation of a screen a the at the Aglime Lancelin Minesite have been assessed against the *Environmental Protection (Noise) Regulations 1997.* Emissions were found to comply with the regulations at all times.

APPENDIX A

NOISE CONTOURS


R1/32 Collins Way
R2/54 Salvair Cr
R3/15 Mullins Way
R4/10 Kendall Rd
R5/3 Kendall Rd
R6/73 Casserly Way
0 50100 200 300 400 m
Signs and symbols
Screening Areas
Point receiver
Maximum Noise Level
Lmax dB(A)
<= 30
<= 35
<= 40
<= 45
<= 50
<= 55
<= 60
> 60
Herring Storer Acoustics
Job No - 25224
AGLIME LANCELIN MINESITE
Screen Operation
Maximum Noise Levels