Prospect Hill International

Noise





How is noise measured in Lara?

The EPA is responsible for ensuring noise from industry does not impact the surrounding residences and businesses. In doing so, EPA provides guidelines on what the maximum recommended noise levels should be from any local business. These are measured at Noise Sensitive Areas (NSAs) around the Prospect Hill Energy from Waste (EfW) plant. In Lara, the key NSAs are the local residences, the closest of which are on Minyip Road.

These recommended maximum noise levels are determined using a methodology based on the following:

- Land use zones for the emitter and receiver (NSAs)
- · Distances between the emitter and receiver
- Background noise levels
- Other existing industrial operations in Lara

Noise Sensitive Area	Effective Recommended Maximum Noise Levels measured in A-weighted decibels (dBA)			
	Day (07:00 to 18:00)	Evening (18:00 to 22:00)	Night (22:00 to 7:00)	
Closest residences on Minyip Road	55	49	44	

Understanding noise levels

The following diagram¹ provides the typical sound levels associated with commonly heard sounds.

Eardrum Perforation Possible	160	Pistol shot	
	150	Fireworks display	
Painful Acoustic Trauma	140	Shotgun blast	
Painfully Loud	130	Jet engine 25m away, motor racing	
	120	Rock concert, thunder	
Extremely Loud	110	Car horn, snowblower, Pneumatic Hammer	
	100	Blow dryer, subway, helicopter, chainsaw	
PROTECT YOUR EARS	85	Prolonged exposure to sounds over 85 dB can be harmful	
Very Loud	80	City traffic, loud radio	
Loud	70	Car, alarm clock, city traffic	
	60	Normal conversation	
EfW Moderate	50	Moderate rainfall	
Range Faint	40	Light rain	
	30	Whisper, library	
	20	Watch ticking	
	dB levels		



Noise levels from the proposed EfW plant

Prospect Hill International has applied a noise model to predict the noise levels

from the EfW plant. The noise from the EfW plant would be below limits set by the EPA

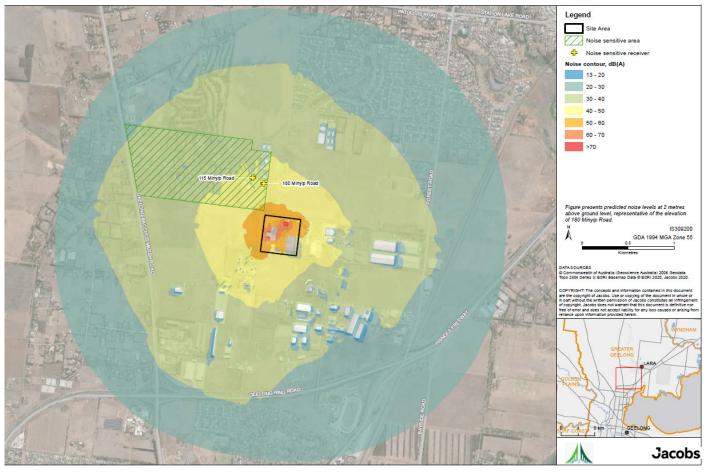
On the next page are the results of the modelling which shows the probable noise levels during adverse meteorological conditions (these weather conditions are considered the 'worse-case' scenario).

¹ http://hearingsense.com.au/causes-of-hearing-loss/

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Noise Fact Sheet





Noise Contour Plot - Adverse Meteorological Conditions

For the closest residences to the proposed EfW plant location, the predicted sound levels during the 'worse-case' weather conditions are tabulated below.

The results show that if the EfW plant is constructed with appropriate noise mitigation measures, compliance with the recommended maximum noise levels will be achieved during all conditions.

Address	Predicted noise level	Effective recommended maximum noise levels (dBA)			
	during operation of EfW	Day (07:00 to 18:00)	Evening (18:00 to 22:00)	Night (22:00 to 7:00)	
115 Minyip Road	40	55	49	44	
180 Minyip Road	43	55	49	44	

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