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Greyhound Training Kennels
320 Telephone Road, Exford
Acoustic Report

Report Number 640.10762-R1

13 January 2014

A. Chapple & J. Barbara
320 Telephone Road
EXFORD, VIC 3338

Version: Revision 1

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1 INTRODUCTION

SLR Consulting Australia Pty Ltd (SLR) were retained by Ms A Chapple and Mr J Barbara to conduct an assessment of noise from their Greyhound training and breeding kennels located at 320 Telephone Road, Exford, to nearby residences, in accordance with Melton City Council planning requirements.

A planning permit is being sought for accommodation and facilities for 50 dogs.

Noise monitoring was undertaken at the site from 6 to 13 December 2013. Site visits and observations of operations were conducted on 6 December.

1.1 Site and Surrounds

The kennels at 320 Telephone Road are used for breeding and training of greyhounds, and generally house a stable dog population. There are currently approximately 25 dogs at the kennels. It is understood that a planning permit for 50 dogs is being sought to cater for puppies expected during breeding periods, and that additional physical kennels are not proposed.

Dogs on the property are housed both within a large steel shed and in separate outdoor kennels and holding yards. Refer to **Figure 1** for the location of kennels and exercise yards.

Figure 1 Site Layout



Background: Nearmap licensed image

The nearest residential receiver to the kennels is located approximately 120 m north of the indoor kennels (Location A, 330 Telephone Road). The next closest residential receivers are approximately 280 m to the north east (Location B1, 10 Larks Road and B2, 20 Larks Road) and 310 m to the north (Location C, 5 Hickey Road). Refer to **Figure 2** for receiver locations.

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Figure 2 Nearest Residential Receivers



The kennel property is immediately north of the Melbourne to Ballarat rail line. Passenger services use the rail corridor during the day and evening period, and freight trains during the day, evening and night periods.

1.2 Statutory Requirements

Noise from dog kennels within Metropolitan Melbourne is subject to the provisions of the State Environment Protection Policy (Control of noise from commerce, industry and trade) No. N-1 (SEPP N-1). The SEPP N-1 detailed map to the north east (included as **Appendix A**) indicates that 320 Telephone Road falls within the Metropolitan Melbourne area for assessment purposes.

The Policy sets noise limits at residential premises and there are separate noise limits for the day, evening, night and weekends, with the lowest limits normally applying at night. Definitions of day, evening and night periods used for determining noise limits under SEPP N-1 are included in **Table 1**.

For the purpose of determining zoning levels and noise limits based on background levels, Saturday afternoon and Sunday daytime are defined as evening periods.

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Table 1 SEPP N-1 Classification of times for determining noise limits

Day	Time	Applicable Noise Limit
Monday to Friday	0700h to 1800h	'Day'
Saturday	0700h to 1300h	
Monday to Friday	1800h to 2200h	'Evening'
Saturday	1300h to 2200h	
Sunday and public holidays	0700h to 2200h	
Monday to Sunday	2200h to 2400h	'Night'
	0000h to 0700h	

Under SEPP N-1 noise limits are based on the land-use zoning of the area surrounding the residence, as defined by the relevant authority, and on the measured background noise levels at the residence when those levels are especially high or low.

SEPP N-1 requires that noise be assessed directly outside the residence potentially affected by noise from commerce or industry.

Noise limits apply to any part of the land that is within the boundary of the potentially affected property and within 10 m from the external wall of that property.

The measured noise from commercial, industrial or trade sites are adjusted for character, including tonality, intermittency and duration. The adjusted noise level is compared with the noise limit to determine whether or not the premises comply with SEPP N-1.

1.3 Methodology

Unattended noise logging was undertaken for one week in order to obtain background noise data for the determination of SEPP N-1 limits and measurements of dog noise from the site.

The logger was deployed at the north east corner of the property, approximately 100 m from the enclosed dog kennels, where most animals were housed. Logging was not undertaken at the nearest residential property north of the site (Location A) because it is understood that the owner has their own dogs, which also occasionally bark.

An ARL Ngara noise logger (S/N 878086) set to record full audio was used and the audio recordings post analysed to identify periods when dogs were barking.

For the purpose of this assessment all recorded dog noise has been attributed to dogs housed in the greyhound kennels at 320 Telephone Road. However, it should be kept in mind that we have no way of attributing beyond doubt that these dogs were the sole source of the recorded noise levels. Neighbouring dogs, particularly those at 330 Telephone Road, may have contributed to the measured noise levels.

1.4 Observations

It was observed, both during our site visits and from listening to sections of the extensive recording, that there were long periods when the dogs were not audible. When barking or whining did occur, it appeared to emanate from one or two dogs, rather than from all dogs in the kennels. This behaviour is unlike that observed at boarding kennels, where dogs are often heard barking continuously, and where many animals typically bark or whine at the same time.

The owner operators appeared to be responsive to dogs when they did bark. Ms Chapple noted that a particular bark indicated that the dog wanted to be let out of its kennel for toileting. As the owners are on site at all times and the dog population is reasonably constant, there appears to be capacity for them to know the dogs and to respond to their needs in ways that are not generally practical in boarding kennels.

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The owner/operators reported that they had two baby monitoring systems installed in the kennel areas, and that these were used to monitor the dogs from inside their home.

Figure 3 Noise Logger Location



Background: Nearnmap licensed image

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2 SEPP N-1 NOISE LIMITS

2.1 Background Noise Levels

Background noise measurements obtained during noise logging is summarised in **Table 2**. Full results of ambient noise logging are included in **Appendix B**.

Table 2 Background Noise Levels (unattended noise logging)

Date	L ₉₀ Noise Level, dBA			Comments
	Day 7 am to 6 pm (arithmetic average)	Evening 6 pm to 10 pm (arithmetic average)	Night 10 pm to 7 am (arithmetic average)	
Fri 6 Dec	-	36	26	Reasonably calm weather. Light SW at night.
Sat 7 Dec	33	35	31	Light to moderate winds, calm at times.
Sun 8 Dec	43	37	31	Windy during the day period, calm at night.
Mon 9 Dec	38	38	34	Variable winds during the day, mostly calm.
Tues 10 Dec	45	38	33	Moderately strong westerly during the day and evening.
Wed 11 Dec	44	38	27	Moderately strong westerly during the day and evening.
Thursday 12 Dec	38	38	28	Moderate winds during the day and evening.
Lowest average level	33	35	26	

Whilst dog barking occurred at times during the logging period, noise from occasional dog barking will not affect the L₉₀ background noise level, which is the level exceeded 90% of the measurement period.

The lowest measured average noise level has been adopted for the purpose of determining noise limits.

2.2 Calculation of Limits

SEPP N-1 noise limits are determined in **Table 3**. All land within the vicinity of the kennels is zoned 'Green Wedge', which is classified as 'Type 1' under SEPP N-1, resulting in the lowest Zoning Levels. Measured background noise levels are classified as 'low' during the day and night period, and consequently the noise limits for these times are less than the Zoning Level.

Table 3 SEPP N-1 Noise Limits

	Day	Evenings and weekends	Night
Zoning Level, dBA	50	44	39
Background Noise Level, dBA L ₉₀	33	35	26
Background classification	Low	Neutral	Low
Noise Limit, calculation	$\frac{1}{2}(\text{bg} + \text{zoning level}) + 4.5$	Zoning Level	$\frac{1}{2}(\text{bg} + \text{zoning level}) + 3$
Noise Limit, dBA	46	44	36

The lowest noise limits apply during the night period.

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3 DOG NOISE LEVELS

3.1 Day / Evening Periods

Significant levels of dog noise were rarely identified during the day and evening periods. Recordings at these times were typically dominated by ambient sounds including birds, farm machinery, insects, traffic, trains, voice etc. When barking or whining did occur, it was generally for short periods.

An assessment of the worst levels of dog barking identified from our logging has been undertaken. The analysed period was between 10:08 am and 10:38 am Monday 9 December 2013. Dog barking was clearly audible for 7.3 minutes of the 30 minute analysis period. Birdsong was also audible throughout the recording, with the contribution of birds generally restricted to measurement bands above 2 kHz.

Table 4: SEPP N-1 Assessment, Monday 9 December 2013, 10:08 am to 10:38 am

	Measurement Location	Location A 330 Telephone Road	Locations B1&B2 and C 10&20 Larks Road and 5 Hickey Road
Measured noise level, dBA Leq,7.3 mins ^A	44.8		
Adjustments			
Distance to residence		-1.6	-9.5
Tone		+2	+2
Intermittency		-	-
Impulse		+5	+5
Duration (7.3/30 mins)		-6.2	-6.2
Effective Noise Level, dBA (rounded)		44	36
Noise limit, dBA		46	46
Compliance status		Compliant	Compliant

NOTE A: Measured low pass filtered to minimise contribution of birdsong (6 dB per octave roll off after 2 kHz).

3.2 Night Period

The highest levels of dog noise during the night period were recorded on Saturday 7 December between 1 am and 3 am. During this period dog whining and barking was intermittently audible. The audio data was reviewed by our client in an effort to confirm the source of the noise, and the whining and some barking was attributed to the dogs at 330 Telephone Road, which were approximately equidistant from the microphone to the greyhounds. Most of the barking that occurred in the 2 am to 3 am period was, however, attributable to the dogs kept in the kennels. The loudest 30 minutes of this hour was analysed, excluding dog whining and barking attributable to the neighbouring dogs (which had a deeper and clearly identifiable bark). Results are provided in **Table 5**.

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Table 5: SEPP N-1 Assessment, Saturday 7 December 2013, 2:22 am to 2:52 am

	Measurement Location	Location A 330 Telephone Road	Locations B1&B2 and C 10&20 Larks Road and 5 Hickey Road
Measured noise level, dBA Leq,6.5 mins	41.9		
Adjustments			
Distance to residence		-1.6	-9.5
Tone		+2	+2
Intermittency		-	-
Impulse		+5	+5
Duration (6.5/30 mins)		-6.6	-6.6
Effective Noise Level, dBA (rounded)		41	33
Noise limit, dBA		36	36
Excess		+5	-
Compliance status		Non-compliant	Compliant

3.3 Discussion

The worst case measured levels of dog noise were found to comply with SEPP N-1 during the day period however a moderate excess was predicted at the nearest residence (120 m north of the kennels) on one occasion during the night time. Compliance was calculated at more distant residential locations for all times of the day and night.

From listening to the recorded data it appeared that the measured levels were due to the disturbance or distress of a single dog at any one time.

It is also of consideration that the measured excess occurred on a night when the neighbouring dog/s were whining loudly; and that the excess was predicted to that residence only.

Most nights little or no dog barking was audible.

Given the above, significant noise control measures, such as acoustically enclosed kennels, do not appear warranted. Instead, it is recommended that the current practice of monitoring dog noise levels, particularly during the night period, be continued.

The increase from 25 to 50 dogs does not present a substantial change to potential noise impacts.

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4 CONCLUSIONS

A SEPP N-1 assessment of noise from the breeding kennels at 320 Telephone Road, Exford has been conducted in accordance with SEPP N-1.

Noise monitoring was undertaken for a full week, however, significant levels of noise from the kennels were not observed.

Moderate non-compliance with SEPP N-1 was calculated to the nearest residence on a night when dogs associated with that property were themselves particularly noisy. Compliance with SEPP N-1 was calculated to that residence at all other times, and to all other residences at all times during the monitoring period.

It is recommended that the kennel owner/operators continue their good noise management practices.