



Sydney Cricket Ground Trust

**NOISE MONITORING, AFL – SYDNEY
SWANS v WESTERN BULLDOGS**

2 JULY 2016

July 2016

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Executive Summary

Monitoring of noise levels at sensitive receptors in the area surrounding Sydney Cricket Ground was undertaken during the Sydney Swans v Western Bulldogs AFL match held on 2 July 2016 to determine compliance with the following noise criteria defined in the site's Noise Management Plan (NMP):

'When measured at the specified monitoring locations, the L_{Amax} of noise emanating from any sound amplification equipment must not exceed 60 dB (A) during any sporting events.

This noise limit applies to wind speeds up to 5m/s, above which wind generated noise on the microphone limits measurement accuracy. During periods of wind greater than 5m/s this noise limit does not apply.

Noise levels measured when wind speed exceed 5m/s (at microphone height) should not be used to measure compliance with noise limits, as wind generated noise may influence measurement accuracy. During periods of wind greater than 5 m/s the Trust must continue to take all reasonable and feasible actions to minimise noise.'

Noise levels were measured for the duration of the amplified activities associated with the event from 15:20 pm to 19:30 pm at the three positions required by the Noise Management Plan. During the monitoring, notes were also made regarding the sources of noise in the area and the source of any potential exceedences of the noise criteria.

Throughout the monitoring, noise levels were recorded at each location every two minutes. During each two minute period notes were also made regarding the sources of noise in the area and the source of any potential exceedences of the noise criteria. The noise levels recorded represent the highest RMS noise level recorded during the two minute period.

During the AFL match it was identified that noise levels from the event were within the criteria defined in the site's NMP throughout the noise monitoring.

At Positions 1 and 2 the match was audible at times, with only 1 exceedance recorded at approximately 4:30 pm at position 1. The level was quickly reduced and no further exceedances were recorded. At Position 3 the match was generally inaudible relative to traffic and other ambient noise.

No complaints were forwarded to Event Noise Management staff for investigation.

During the event, L_{Amax} noise levels were higher than the 60 dB(A) criteria for the majority of the time due to traffic noise, patrons, and pedestrians external to the venue. These sources of noise are not directly attributable to the sound amplification system and therefore do not represent an exceedance of the criteria.

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1 INTRODUCTION

1.1 SCOPE OF ASSESSMENT

Sydney Cricket Ground Trust (SCGT) commissioned Event Noise Management to conduct event noise monitoring during the Sydney Swans v Western Bulldogs AFL match held on 2 July 2016 as part of the requirements under the Noise Management Plan (NMP) for the facility¹

This report presents a summary of the results of the monitoring and a comparison with the noise criteria for the event as defined in the NMP.

1.2 EVENT DETAILS

The sporting event was held at Sydney Cricket Ground (SCG) on Saturday 2 July 2016 from 4:50 pm until 7:04 pm, with amplified music, announcements and advertising continuing at a low level until approximately 7:30 pm.

1.3 EVENT NOISE CRITERIA

Noise limits for sporting events held at Allianz Stadium are provided in the site's NMP as follows:

'When measured at the specified monitoring locations, the L_{Amax} of noise emanating from any sound amplification equipment must not exceed 60 dB (A) during any sporting events.'

This noise limit applies to wind speeds up to 5m/s, above which wind generated noise on the microphone limits measurement accuracy. During periods of wind greater than 5m/s this noise limit does not apply.

Noise levels measured when wind speed exceed 5m/s (at microphone height) should not be used to measure compliance with noise limits, as wind generated noise may influence measurement accuracy. During periods of wind greater than 5 m/s the Trust must continue to take all reasonable and feasible actions to minimise noise.'

Section 6.2.1 of the NMP details the monitoring positions that must be considered as follows:

'Monitoring Locations

For both sporting events and concerts attended monitoring locations will be as set out below.

For activities taking place at the SCG:

- *At a point within one (1) metre of the boundary nearest to the SCG, at the corner of Poate Road and Poate Lane, Centennial Park;*
- *At a point within one (1) metre of the boundary nearest to the SCG, at the corner of*

¹ Sydney Cricket Ground and Allianz Stadium, Noise Management Plan (NMP), prepared by ERM for Sydney Cricket and Sports Ground Trust (SCGT), April 2015

Leinster and Regent Streets, Paddington; and

- *At a point within one (1) metre of the boundary nearest to the SCG, at the corner of Robertson Road and Martin Road (northern intersection), Moore Park.*

2 MONITORING METHODOLOGY

2.1 MONITORING POSITIONS

Monitoring during the match were undertaken at two fixed monitoring positions as required by the NMP. Table 2.1 presents a summary of the monitoring locations assessed during the event, with the monitoring positions identified on Figure 1.

TABLE 2.1: SUMMARY OF MONITORING POSITIONS

Position	Description
1	Fixed monitoring position located within 1 m of the front boundary at the corner of Poate Road and Poate Lane
2	Fixed monitoring position located within 1 m of the front boundary at the corner of Leinster and Regent Streets
3	Fixed monitoring position located within 1 m of the front boundary at the corner of Robertson Road and Martin Road (northern intersection)

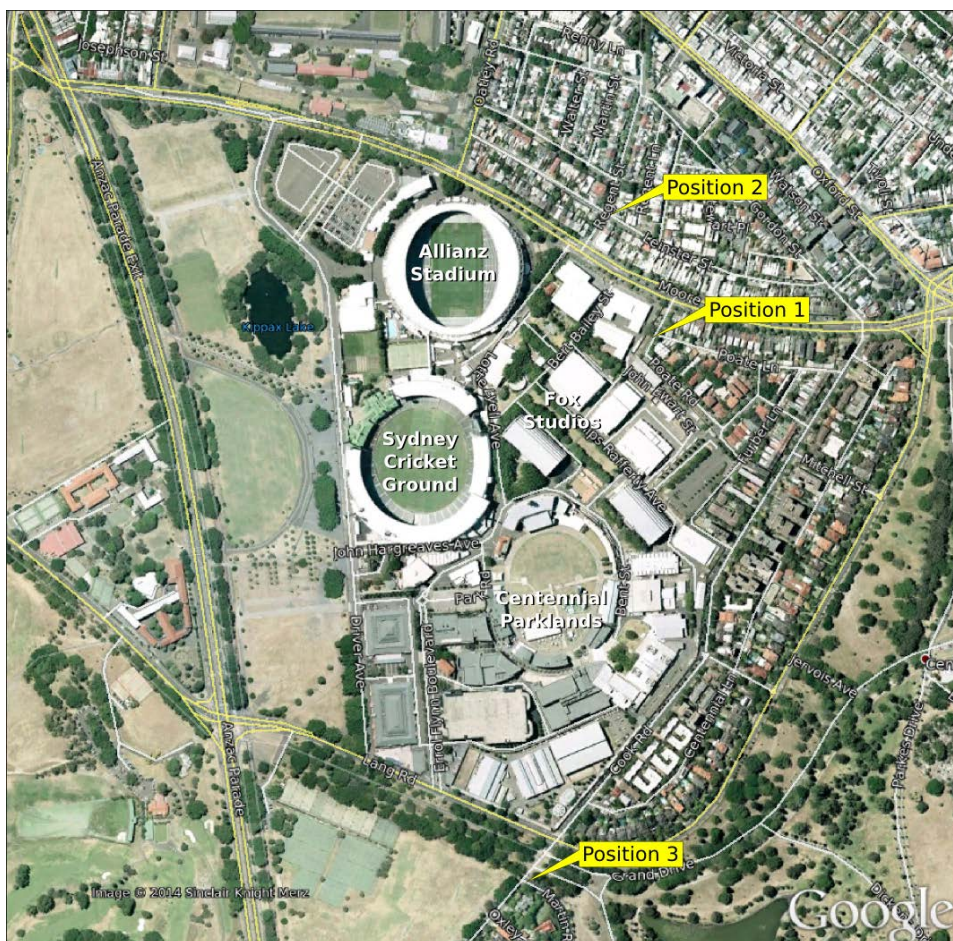


Figure 1: Noise Monitoring Positions (External Fixed Locations)

2.2 OPERATORS

During the monitoring undertaken on 2 July 2016, Event Noise Monitoring personnel were located at each position identified in Figure 1. The monitoring exercise was undertaken by the following personnel:

- Position 1: Roger Treagus: BA, MA Env. Stud, MAAS.
- Position 2: Jamie Muscat: AssocDeg(Audio Eng).
- Position 3: Gary Hall: Bsc (Hons) Env Sci.

2.3 MONITORING EQUIPMENT

Table 2.2 presents a summary of the equipment used to complete the monitoring. The monitoring instruments utilised conform to Australian Standard 1259 "Acoustics - Sound Level Meters", (1990) as Type 1 precision sound level meters and have an accuracy suitable for both field and laboratory use.

The sound level meters and calibrator used for the monitoring have been checked, adjusted and aligned to conform to the Type 1 specifications and issued with a conformance certificate (NATA).

TABLE 2.2: SUMMARY OF MONITORING EQUIPMENT

Position	Instrument Model	Instrument Serial	Instrument Calibration Due Date	Calibrator Model	Calibrator Serial	Calibrator Calibration Due Date
1	Nor 140	1404663	06/07/17	Svan SV03A	358	12/01/18
2	B&K 2250	2741104	23/10/17	Svan SV03A	358	12/01/18
3	B&K 2250	2741105	22/01/17	Svan SV03A	358	12/01/18

Field calibrations of each of the instruments were also undertaken prior to and immediately after the monitoring was completed. Less than 0.5 dB drift occurred over the measurement periods. All instruments were fitted with a windshield and monitoring was completed at a height of 1.5 m above ground level.

2.4 WEATHER CONDITIONS DURING THE EVENT

During the monitoring period winds speeds on site were typically moderate westerly winds up to 24 km/h. The temperature was generally cool with clear skies.

Table 2.3 presents a summary of the meteorological data from Sydney Airport obtained from the Bureau of Meteorology during the event.

TABLE 2.3: SUMMARY OF METEOROLOGICAL DATA

Time	Temp °C	Wind				Pressure hP	Rain since 9 am mm	
		Direction	Speed km/h	Gust km/h	Speed knots			Gust knots
3:00 pm	17.7	WSW	13	19	7	10	1023.0	0
3:30 pm	17.5	W	19	26	10	14	1023.1	0
4:00 pm	16.9	W	13	19	7	10	1023.3	0
4:30 pm	16.4	W	17	22	9	12	1023.5	0
5:00 pm	15.3	W	20	28	11	15	1023.9	0
5:30 pm	14.6	WSW	17	24	9	13	1024.3	0
6:00 pm	14.2	WSW	20	26	11	14	1024.8	0
6:30 pm	13.7	W	24	33	13	18	1025.1	0
7:00 pm	13.3	W	24	32	13	17	1025.4	0
7:30 pm	12.8	W	24	30	13	16	1025.7	0
8:00 pm	12.5	W	20	28	11	15	1025.9	0

2.5 METEOROLOGICAL INFLUENCES ON MONITORING

During the main match the, light to moderate Westerly were perceived to carry noise from the SCG towards the residential areas.

3 RESULTS OF MONITORING

3.1 METHODOLOGY

Noise monitoring was completed continuously at each location throughout the monitoring period with the maximum noise level recorded for every two minute period. During the monitoring, notes were also made regarding the sources of noise in the area and the source of any potential exceedances of the noise criteria. The noise levels represent the highest RMS noise level recorded during the two minute period. Hence, even where exceedances are identified, it is possible that for the majority of the two minute period receptor noise levels (from amplified activities in the SCG) were compliant with the NMP criteria.

3.2 MONITORING RESULTS

Noise monitoring during the Sydney Swans v Gold Coast AFL Match held on 2 July 2016 at the SCG was conducted between 3:20 pm and 7:30 pm at monitoring positions 1, 2 and 3. The measured noise levels and associated notes that were recorded during this period are presented in Appendix B.

During the AFL match it was identified that noise levels from the event were within the criteria defined in the site's NMP throughout the noise monitoring.

At Positions 1 and 2 the match was audible at times, with only 1 exceedance recorded at approximately 4:30 pm at position 1. The level was quickly reduced and no further exceedances were recorded. At Position 3 the match was generally inaudible relative to traffic and other ambient noise.

All recorded L_{Amax} noise levels were greater than the noise criteria set in the NMP for noise emanating from sound amplification equipment. However, these noise levels do not represent non-compliance with the NMP as the L_{Amax} levels recorded were attributable to extraneous noise sources and not the PA system. These sources included passing vehicles, aircraft overhead, event patrons outside the venue, and pedestrians.

3.3 CONCERT HOTLINE

During the event no noise complaint related calls were received on the concert hotline established by the Sydney Cricket Ground Trust. No complaints were received by Event Noise Management staff for investigation.

4 CONCLUSIONS

Noise monitoring of amplified noise from Sydney Cricket Ground during the Sydney Swans v Western Bulldogs AFL match held on 2 July 2016 was completed at three positions as required by the site's Noise Management Plan.

Noise levels were measured for the duration of the amplified activities associated with the event from 3:20 pm to 7:30 pm. Throughout the monitoring, noise levels were recorded continuously and the maximum levels for every two minute period were identified. During each two minute period notes were also made regarding the sources of noise in the area and the source of any potential exceedences of the noise criteria. The noise levels recorded represent the highest RMS noise level recorded during the two minute period.

During the AFL match it was identified that noise levels from the event were within the criteria defined in the site's NMP throughout the noise monitoring.

At Positions 1 and 2 the match was audible at times, with only 1 exceedance recorded at approximately 4:30 pm at position 1. The level was quickly reduced and no further exceedances were recorded. At Position 3 the match was generally inaudible relative to traffic and other ambient noise.

No complaints were forwarded to Event Noise Management staff for investigation.

During the event, L_{Amax} noise levels were higher than the 60 dB(A) criteria for the majority of the time due to traffic noise, patrons external to the venue, and pedestrians. These sources of noise are not directly attributable to the sound amplification system and therefore do not represent an exceedance of the criteria.

APPENDIX A

ACOUSTIC GLOSSARY

APPENDIX A: GLOSSARY OF ACOUSTIC TERMINOLOGY

A-Weighting	A response provided by an electronic circuit which modifies sound in such a way that the resulting level is similar to that perceived by the human ear.
dB (decibel)	This is the scale on which sound pressure level is expressed. It is defined as 20 times the logarithm of the ratio between the root-mean-square pressure of the sound field and the reference pressure (0.00002N/m ²).
dB(A)	This is a measure of the overall noise level of sound across the audible spectrum with a frequency weighting (i.e. 'A' weighting) to compensate for the varying sensitivity of the human ear to sound at different frequencies.
dB(C)	This is a standard weighting of the audible frequencies, commonly used for the measurement of Peak Sound Pressure level.
Facade Noise Level	Refers to a sound pressure level determined at a point close to an acoustically reflective surface (in addition to the ground). Typically a distance of 1 metre is used.
Free Field	Refers to a sound pressure level determined at a point away from reflective surfaces other than the ground with no significant contribution due to sound from other reflective surfaces; generally as measured outside and away from buildings.
Hertz (Hz)	A measure of the frequency of sound. It measures the number of pressure peaks per second passing a point when a pure tone is present.
L_{Aeq} Equivalent Continuous Sound Level	This is the equivalent steady sound level in dB(A) containing the same acoustic energy as the actual fluctuating sound level over the given period. For a steady sound with small fluctuations, its value is close to the average sound pressure level.
L_{A90,T}	This is the dB(A) level exceeded 90% of the time, T.
L_{A10,T}	This is the dB(A) level exceeded 10% of the time, T.
L_{Amax}	is the maximum A-weighted sound pressure level recorded over the period stated.
L_{Cmax}	is the maximum C-weighted sound pressure level recorded over the period stated.

APPENDIX B

DETAILED MONITORING DATA (FIXED POSITIONS)



EVENT NOISE MANAGEMENT

Project Number:	4464	Date:	2/7/2016
Project Description:	AFL: Sydney Swans v Western Bulldogs (Sydney Cricket Ground)		
Monitoring Location:	1: Corner of Leinster and Regent Streets		
Operator:	Jamie Muscat		
Weather Description:	Clear skies, light Westerly, cold		
Instrument:	B & K 1	Calibrator Model:	Svan 03A
Instrument Serial:	2741104	Calibrator Serial:	358
Instrument NATA Calibration Date:	23/10/2017	Calibrator NATA Calibration Date:	12/1/2018
Pre-calibration:	94.5	Post calibration:	94.4

Time	L_{Amax} dB(A)	Description of Noise and/or Changes to Weather
	Criteria 60	
15:20:00	83.1	Traffic dominant adjusted stand
15:22:00	73.4	Traffic dominant
15:24:00	77	Traffic dominant
15:26:00	75.4	Traffic dominant
15:28:00	74	Traffic dominant
15:30:00	76.6	Car door slam, traffic dominant
15:32:00	83.2	House door slam, traffic dominant
15:34:00	71.3	Traffic dominant
15:36:00	74.8	Traffic, motorbike dominant
15:38:00	68	Traffic dominant
15:40:00	74.1	Traffic dominant
15:42:00	77.7	Traffic dominant
15:44:00	70.7	Traffic dominant, PA audible 56 dB(A)

Time	L _{Amax} dB(A)	<u>Description of Noise and/or Changes to Weather</u>
15:46:00	69.9	Traffic
15:48:00	80.2	Car horn, traffic dominant
15:50:00	70.2	Traffic dominant
15:52:00	81.2	Talking close to mic, traffic dominant
15:54:00	74	Traffic dominant
15:56:00	74.3	Traffic dominant, plane
15:58:00	74.6	Traffic dominant
16:00:00	72.8	Traffic dominant
16:02:00	87.4	Traffic dominant, motorbike
16:04:00	75.4	Traffic dominant, people talking
16:06:00	72.9	Traffic dominant
16:08:00	73.6	Traffic dominant
16:10:00	76.6	Traffic dominant
16:12:00	85.5	People talking, traffic dominant
16:14:00	76.3	Traffic dominant
16:16:00	75.6	Traffic dominant
16:18:00	74.6	Traffic dominant
16:20:00	82.1	Traffic, people talking
16:22:00	74.5	Traffic dominant
16:24:00	77.1	Traffic dominant
16:26:00	82.6	People clapping, traffic dominant
16:28:00	75.5	Traffic dominant, PA roughly 61.3 dB(A)
16:30:00	72.6	Traffic dominant
16:32:00	72.3	Traffic dominant, PA audible at 55 dB(A)

Time	L _{Amax} dB(A)	<u>Description of Noise and/or Changes to Weather</u>
16:34:00	72.2	Traffic dominant, siren went off
16:36:00	70.6	Traffic dominant
16:38:00	73.8	Traffic dominant
16:40:00	76.4	Traffic dominant, people talking
16:42:00	73.6	Traffic dominant
16:44:00	78.1	Traffic dominant
16:46:00	74.6	Traffic dominant
16:48:00	80.4	talking, traffic
16:50:00	72.5	Traffic dominant
16:52:00	67.7	Traffic dominant
16:54:00	70.5	Traffic dominant
16:56:00	81.9	Talking, traffic dominant
16:58:00	79.7	Traffic dominant
17:00:00	70.3	Traffic dominant
17:02:00	68.2	Traffic dominant
17:04:00	71.2	Traffic dominant, buzzer 70 dB(A)
17:06:00	68.2	Traffic dominant
17:08:00	72	Traffic, buzzer 71 dB(A)
17:10:00	71.9	Traffic, buzzer 68 dB(A)
17:12:00	83.3	Traffic, motorbike
17:14:00	72.3	Traffic dominant
17:16:00	74.3	Traffic dominant
17:18:00	68.2	Traffic dominant
17:20:00	78.7	Traffic dominant



Time	L _{Amax} dB(A)	Description of Noise and/or Changes to Weather
17:22:00	79.7	Traffic dominant
17:24:00	69.1	Traffic dominant
17:26:00	73.5	Traffic dominant
17:28:00	72.5	Traffic dominant
17:30:00	68	Traffic dominant
17:32:00	71.4	Traffic dominant
17:34:00	68.8	Traffic dominant
17:36:00	74.2	Traffic dominant
17:38:00	68.1	Traffic dominant
17:40:00	72.9	Traffic, buzzer 71 dB(A)
17:42:00	74.6	Traffic dominant
17:44:00	73.6	Traffic dominant
17:46:00	68.7	Traffic dominant
17:48:00	66.2	Traffic dominant
17:50:00	69.5	traffic dominant
17:52:00	67.8	Traffic dominant
17:54:00	68.5	Traffic dominant
17:56:00	75.8	Traffic dominant
17:58:00	76.6	Traffic dominant, car alarm
18:00:00	71.1	Traffic dominant
18:02:00	75.6	Traffic dominant
18:04:00	68.7	Traffic dominant
18:06:00	69.3	Traffic dominant
18:08:00	74.7	Traffic dominant

Time	L _{Amax} dB(A)	<u>Description of Noise and/or Changes to Weather</u>
18:10:00	67.8	Traffic dominant
18:12:00	70.6	Traffic dominant
18:14:00	67.7	Traffic dominant
18:16:00	69.7	Traffic dominant
18:18:00	67.3	Traffic dominant
18:20:00	69.6	Traffic dominant
18:22:00	81.9	Traffic, motorbike
18:24:00	76.9	Traffic dominant
18:26:00	68.7	Traffic dominant
18:28:00	68.7	Traffic dominant
18:30:00	74.6	Traffic dominant
18:32:00	69.3	Traffic dominant
18:34:00	78.9	Traffic dominant
18:36:00	72.7	Traffic dominant
18:38:00	68.7	Traffic dominant
18:40:00	80.4	Traffic dominant, people talking
18:42:00	74.8	Traffic dominant
18:44:00	71.1	Traffic dominant
18:46:00	75.7	Traffic dominant, people talking
18:48:00	78.5	Traffic dominant, skateboard
18:50:00	76.3	Traffic dominant, people talking
18:52:00	79.6	Traffic dominant, car door slam
18:54:00	66.1	Traffic dominant
18:56:00	67.5	Traffic dominant



Time	L_{Amax} dB(A)	<u>Description of Noise and/or Changes to Weather</u>
18:58:00	70.8	Traffic dominant
19:00:00	80.8	Traffic, motorbike
19:02:00	67.6	Traffic dominant
19:04:00	65.9	Traffic dominant
19:06:00	84.3	Traffic, people talking
19:08:00	82.4	Traffic, people talking
19:10:00	80.8	Traffic, people talking
19:12:00	75.4	Traffic, car horn
19:14:00	70.0	Traffic dominant
19:16:00	75.8	Traffic dominant
19:18:00	79.2	Traffic people talking
19:20:00	76.9	Traffic dominant, people talking
19:22:00	74.7	Traffic dominant, people talking
19:24:00	77.7	Traffic dominant, people talking
19:26:00	79.6	Traffic dominant, people talking
19:28:00	74.4	Traffic dominant, people talking
19:30:00	82.6	Traffic dominant, people talking



EVENT NOISE MANAGEMENT

Project Number:	4464	Date:	2/07/16
Project Description:	AFL: Sydney Swans v Western Bulldogs (SCG)		
Monitoring Location:	2- Poate Lane		
Operator:	Roger Treagus		
Weather Description:	Westerly winds, moderate, cold, clear skies		
Instrument:	Nor 10	Calibrator Model:	Svan 03A
Instrument Serial:	1404663	Calibrator Serial:	358
Instrument NATA Calibration Date:	6/7/17	Calibrator NATA Calibration Date:	12/1/18
Pre-calibration:	93.7	Post calibration:	93.9

Time	L_{Amax} dB(A)	<u>Description of Noise and/or Changes to Weather</u>
15:28:00	74.5	Monitoring Started – Ambient: Traffic, birds, domestic, aircraft
15:30:00	65.4	Traffic noise Moore Park Road and Poate Lane
15:32:00	75.1	Traffic noise Moore Park Road and Poate Lane
15:34:00	70.9	Siren 46 dB(A)
15:36:00	78.8	Announcement 47 dB(A)
15:38:00	77.5	Traffic noise Moore Park Road and Poate Lane
15:40:00	75.2	Traffic noise Moore Park Road and Poate Lane
15:42:00	75.1	Siren 63 dB(A)
15:44:00	74.3	Announcements at 52 dB(A)
15:46:00	77	Traffic noise Moore Park Road and Poate Lane
15:48:00	71.4	Traffic noise Moore Park Road and Poate Lane
15:50:00	75.8	Traffic noise Moore Park Road and Poate Lane
15:52:00	79	Traffic noise Moore Park Road and Poate Lane
15:54:00	77.8	Announcement 54 dB(A)

Time	L _{Amax} dB(A)	<u>Description of Noise and/or Changes to Weather</u>
15:56:00	74.6	Traffic noise Moore Park Road and Poate Lane
15:58:00	68.7	Music 53 dB(A)
16:00:00	75.8	Traffic noise Moore Park Road and Poate Lane
16:02:00	70.8	Traffic noise Moore Park Road and Poate Lane
16:04:00	80.3	Announcement 49 dB(A)
16:06:00	69.6	Traffic noise Moore Park Road and Poate Lane
16:08:00	80.1	Traffic noise Moore Park Road and Poate Lane
16:10:00	72.7	Announcement 53 dB(A)
16:12:00	69.6	Traffic noise Moore Park Road and Poate Lane
16:14:00	64.9	Traffic noise Moore Park Road and Poate Lane
16:16:00	68.7	Traffic noise Moore Park Road and Poate Lane
16:18:00	74.9	Traffic noise Moore Park Road and Poate Lane
16:20:00	64.6	Traffic noise Moore Park Road and Poate Lane
16:22:00	69.5	Traffic noise Moore Park Road and Poate Lane
16:24:00	72.8	Siren 53 dB(A)
16:26:00	71.6	PA 53 dB(A)
16:28:00	72.7	Song 58 dB(A)
16:30:00	67.6	Siren 57 dB(A)
16:32:00	73.5	Siren 62 dB(A)
16:34:00	74.3	Siren 74 dB(A)
16:36:00	71.3	Game Starts – Crowd Noise Only
16:38:00	72.7	Crowd Noise – No PA
16:40:00	67.8	Traffic noise Moore Park Road and Poate Lane
16:42:00	72.5	Traffic noise Moore Park Road and Poate Lane

Time	L _{Amax} dB(A)	<u>Description of Noise and/or Changes to Weather</u>
16:44:00	74.7	Traffic noise Moore Park Road and Poate Lane
16:46:00	79	Traffic noise Moore Park Road and Poate Lane
16:48:00	71.9	Traffic noise Moore Park Road and Poate Lane
16:50:00	69.4	Traffic noise Moore Park Road and Poate Lane
16:52:00	75.7	Traffic noise Moore Park Road and Poate Lane
16:54:00	78.7	Traffic noise Moore Park Road and Poate Lane
16:56:00	72.5	Traffic noise Moore Park Road and Poate Lane
16:58:00	75.7	Traffic noise Moore Park Road and Poate Lane
17:00:00	74.4	Battery Change
17:02:00	79	Sirent 73 dB(A)
17:04:00	72.8	Music 55 dB(A)
17:06:00	69.5	Traffic noise Moore Park Road and Poate Lane
17:08:00	80.4	Siren 71 dB(A)
17:10:00	79.7	Crowd Noise
17:12:00	66.8	Traffic noise Moore Park Road and Poate Lane
17:14:00	61.9	Traffic noise Moore Park Road and Poate Lane
17:16:00	65	Traffic noise Moore Park Road and Poate Lane
17:18:00	72.5	Traffic noise Moore Park Road and Poate Lane
17:20:00	70.2	Traffic noise Moore Park Road and Poate Lane
17:22:00	64.6	Traffic noise Moore Park Road and Poate Lane
17:24:00	75.1	Traffic noise Moore Park Road and Poate Lane
17:26:00	69.2	Traffic noise Moore Park Road and Poate Lane
17:28:00	65.5	Traffic noise Moore Park Road and Poate Lane
17:30:00	68.9	Traffic noise Moore Park Road and Poate Lane



Time	L _{Amax} dB(A)	<u>Description of Noise and/or Changes to Weather</u>
17:32:00	73.4	Traffic noise Moore Park Road and Poate Lane
17:34:00	78.4	Traffic noise Moore Park Road and Poate Lane
17:36:00	71	Traffic noise Moore Park Road and Poate Lane
17:38:00	63.5	Traffic noise Moore Park Road and Poate Lane
17:40:00	70.5	Siren 63 dB(A), PA 53 dB(A)
17:42:00	64.8	Traffic noise Moore Park Road and Poate Lane
17:44:00	64.7	Traffic noise Moore Park Road and Poate Lane
17:46:00	65.6	PA 54 dB(A)
17:48:00	64.5	Traffic noise Moore Park Road and Poate Lane
17:50:00	68.8	Traffic noise Moore Park Road and Poate Lane
17:52:00	70.1	Traffic noise Moore Park Road and Poate Lane
17:54:00	79.6	Traffic noise Moore Park Road and Poate Lane
17:56:00	74.1	Siren 64 dB(A) (17:57)
17:58:00	73.5	Siren 62 dB(A) (17:58)
18:00:00	70	Siren 68 dB(A) (17:59)
18:02:00	67.1	Crowd Noise
18:04:00	68.4	Traffic noise Moore Park Road and Poate Lane
18:06:00	75	Traffic noise Moore Park Road and Poate Lane
18:08:00	68.3	Traffic noise Moore Park Road and Poate Lane
18:10:00	58.5	Traffic noise Moore Park Road and Poate Lane
18:12:00	68.8	Traffic noise Moore Park Road and Poate Lane
18:14:00	66.6	Traffic noise Moore Park Road and Poate Lane
18:16:00	65.8	Traffic noise Moore Park Road and Poate Lane
18:18:00	69	Traffic noise Moore Park Road and Poate Lane

Time	L _{Amax} dB(A)	<u>Description of Noise and/or Changes to Weather</u>
18:20:00	66.2	Traffic noise Moore Park Road and Poate Lane
18:22:00	69.2	Traffic noise Moore Park Road and Poate Lane
18:24:00	70.8	Traffic noise Moore Park Road and Poate Lane
18:26:00	70.9	Traffic noise Moore Park Road and Poate Lane
18:28:00	68.8	Traffic noise Moore Park Road and Poate Lane
18:30:00	72.7	Siren 63 dB(A)
18:32:00	75.1	PA 51 dB(A), Siren 68.0 dB(A)
18:34:00	68	Siren 72 dB(A)
18:36:00	64	71 dB(A)
18:38:00	68	Crowd Noise
18:40:00	66	Traffic noise Moore Park Road and Poate Lane
18:42:00	66.9	Traffic noise Moore Park Road and Poate Lane
18:44:00	75.8	Traffic noise Moore Park Road and Poate Lane
18:46:00	73.4	Traffic noise Moore Park Road and Poate Lane
18:48:00	70.4	Traffic noise Moore Park Road and Poate Lane
18:50:00	75.9	Traffic noise Moore Park Road and Poate Lane
18:52:00	73.7	PA – 52 dB(A)
18:54:00	66.8	Crowd Noise
18:56:00	70.9	Traffic noise Moore Park Road and Poate Lane
18:58:00	66.4	Traffic noise Moore Park Road and Poate Lane
19:00:00	78.6	Traffic noise Moore Park Road and Poate Lane
19:02:00	70.6	Traffic noise Moore Park Road and Poate Lane
19:04:00	69.7	Traffic noise Moore Park Road and Poate Lane
19:06:00	67.3	Siren 71 dB(A)



Time	L _{Amax} dB(A)	<u>Description of Noise and/or Changes to Weather</u>
19:08:00	70.1	PA 53 dB(A)
19:10:00	70.8	Traffic noise Moore Park Road and Poate Lane
19:12:00	67.8	Traffic noise Moore Park Road and Poate Lane
19:14:00	64.2	Traffic noise Moore Park Road and Poate Lane
19:16:00	69.2	Traffic noise Moore Park Road and Poate Lane
19:18:00	82.7	PA 49 dB(A)
19:20:00	74.5	Traffic noise Moore Park Road and Poate Lane



EVENT NOISE MANAGEMENT

Project Number:	4464	Date:	2/7/2016
Project Description:	AFL: Sydney Swans v Western Bulldogs (Sydney Cricket Ground)		
Monitoring Location:	3: Corner of Roberson and Martin Road		
Operator:	Gary Hall		
Weather Description:	Clear light winds		
Instrument:	B & K 2	Calibrator Model:	Svan03A
Instrument Serial:	2741105	Calibrator Serial:	358
Instrument NATA Calibration Date:	22/1/17	Calibrator NATA Calibration Date:	12/1/18
Pre-calibration:	93.9	Post calibration:	93.9

Time	L _{Amax} dB(A)	Description of Noise and/or Changes to Weather
	Criteria 60	
15:38:00	74.7	Traffic, birds
15:40:00	75.9	Birds, traffic
15:42:00	75.4	Traffic, birds
15:44:00	76.1	Traffic, plane
15:46:00	78.5	Traffic
15:48:00	70.9	Traffic
15:50:00	72.2	Traffic
15:52:00	72.6	Traffic
15:54:00	74.2	Traffic
15:56:00	72.1	Traffic
15:58:00	72	Traffic
16:00:00	72.5	Traffic



Time	L _{Amax} dB(A)	<u>Description of Noise and/or Changes to Weather</u>
16:02:00	65.9	Traffic
16:04:00	74.9	Traffic, birds
16:06:00	68.7	Traffic, pedestrian
16:08:00	61.7	Traffic
16:10:00	69.4	Traffic
16:12:00	60.3	Traffic
16:14:00	64.8	Traffic
16:16:00	62.8	Traffic
16:18:00	72.9	Traffic, birds
16:20:00	66.5	Traffic
16:22:00	63	Traffic
16:24:00	63.7	Traffic
16:26:00	61.5	Traffic
16:28:00	72.7	Traffic
16:30:00	63.5	Traffic
16:32:00	69.1	Traffic
16:34:00	66.6	Traffic
16:36:00	72.9	Plane, traffic
16:38:00	65.6	Traffic
16:40:00	70.9	Traffic, birds
16:42:00	62.6	Traffic
16:44:00	75.5	Birds, traffic
16:46:00	63.9	Traffic
16:48:00	66.4	Traffic



Time	L _{Amax} dB(A)	Description of Noise and/or Changes to Weather
16:50:00	63.4	Traffic, birds
16:52:00	75.6	Traffic
16:54:00	61	Traffic
16:56:00	68.9	Traffic
16:58:00	67.4	Traffic
17:00:00	64.4	Traffic
17:02:00	66.5	Traffic
17:04:00	69.3	Traffic
17:06:00	65.2	Traffic
17:08:00	65.6	Traffic
17:10:00	68.6	Traffic
17:12:00	65.2	Traffic
17:14:00	61.7	Traffic
17:16:00	75.7	Motorbike
17:18:00	74.1	Traffic
17:20:00	66.7	Traffic
17:22:00	68.4	Traffic
17:24:00	64.3	Traffic
17:26:00	67.3	Traffic
17:28:00	68.1	Traffic
17:30:00	67.9	Traffic
17:32:00	66.2	Traffic
17:34:00	69.3	Traffic
17:36:00	75.6	Traffic



Time	L _{Amax} dB(A)	<u>Description of Noise and/or Changes to Weather</u>
17:38:00	72.6	Traffic
17:40:00	74.4	Traffic
17:42:00	63.6	Traffic
17:44:00	68.5	Traffic
17:46:00	61.1	Traffic
17:48:00	65.8	Traffic
17:50:00	65.8	Traffic
17:52:00	58.4	Traffic
17:54:00	62.9	Traffic
17:56:00	60.6	Traffic
17:58:00	60.7	Traffic dominant siren 59 dB(A)
18:00:00	66.4	Siren 57
18:02:00	66.8	Traffic
18:04:00	68	Traffic
18:06:00	63	Traffic
18:08:00	57.1	Traffic
18:10:00	60.5	Traffic
18:12:00	60.5	Traffic
18:14:00	60.3	Traffic
18:16:00	59	Traffic
18:18:00	57.2	Traffic
18:20:00	56.3	Traffic
18:22:00	60	Traffic
18:24:00	63.1	Traffic

Time	L _{Amax} dB(A)	<u>Description of Noise and/or Changes to Weather</u>
18:26:00	57.3	Traffic
18:28:00	77.4	Motorbike
18:30:00	67.6	Traffic
18:32:00	69.4	Traffic
18:34:00	73	Traffic
18:36:00	62	Traffic
18:38:00	65	Traffic
18:40:00	63.8	Traffic
18:42:00	62.5	Traffic
18:44:00	59.9	Traffic
18:46:00	66.2	Traffic
18:48:00	63.8	Traffic
18:50:00	74	Motorbike
18:52:00	61.3	Traffic
18:54:00	62.5	Crowd 57 dB(A)
18:56:00	62.5	Traffic
18:58:00	60.3	Traffic
19:00:00	65.3	Traffic
19:02:00	64.3	Traffic
19:04:00	66.5	Game over traffic dominant
19:06:00	66.2	Traffic
19:08:00	60.6	Traffic
19:10:00	68.7	Traffic