



SEARS ACOUSTIC REPORT

Riverview Ignis Project - Stage 2

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14 October 2020

Prepared For:

Saint Ignatius College Riverview

c/- EPM Projects Pty Ltd
Level 2, 146 Arthur Street,
North Sydney
NSW 2060

Email: pibrahim@epmprojects.com.au

DOCUMENT INFORMATION

Author: Daniel Firth

Checked By: Joel Parry-Jones



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Date	Version	To	Email
10/08/2020	A DRAFT	Peter Ibrahim	pibrahim@epmprojects.com.au
14/10/2020	1	Peter Ibrahim	pibrahim@epmprojects.com.au

Prepared By:

PJ Knowland Pty. Ltd.

t/a PKA Acoustic Consulting

PO Box 345, Lane Cove NSW 1595

ABN 87 256 407 546, ACN 621 896 204

T (02) 9460 6824 · E admin@pka.com.au



CONTENTS

1.0	INTRODUCTION	5
2.0	SUMMARY	5
3.0	SITE DESCRIPTION	6
3.1	Site Overview	6
4.0	ACOUSTIC CRITERIA	8
4.1	SEAR's Requirements	8
4.2	NSW EPA Noise Policy for Industry (NPfI)	9
4.3	EPA NSW Interim Construction Noise Guidelines (ICNG)	10
4.4	General Construction Vibration Criteria	11
4.5	Operation of Public Address and School Bell	11
5.0	NOISE SURVEY	12
5.1	Instrumentation	12
5.2	Project Noise Criteria	12
5.3	Rooftop Plant Noise Assessment	13
5.4	EPA NSW Interim Construction Noise Guidelines – Noise Goals	13
6.0	RECOMMENDATIONS	14
	APPENDIX A NOISE MEASUREMENTS (GRAPHICAL)	15

This firm is a member of the Association of Australian Acoustical Consultants.

The work reported herein has been carried out in accordance with the terms of membership. We stress that the advice given herein is for acoustic purposes only, and that the relevant authorities should be consulted with regard to compliance with regulations governing areas other than acoustics.

LIST OF FIGURES

Figure 3-1 Site Location	6
Figure 3-2 Project Location	7
Figure 3-3 Rooftop Floorplan	7

LIST OF TABLES

Table 4-1 Noise Criteria - Amenity for receiver buildings	9
Table 4-2 Noise Levels Residential Receivers (Extract from EPA ICNG)	10
Table 5-1 NPfI Project Noise Trigger Levels	12
Table 5-2 Noise Calculated to the receiver Boundary	13
Table 5-3 EPA NSW Interim Construction Noise Guidelines Criteria for Site	13

1.0 INTRODUCTION

PKA has been engaged by EPM Projects Pty Ltd to conduct an acoustic assessment for the development at Saint Ignatius College, Riverview as part of the SEARs documentation to be submitted to the council/certifier.

This report will address the noise breakout to sensitive receivers and relevant acoustic treatment and management measures that will need to be incorporated to meet the relevant acoustic criteria from the proposed development.

This report has been prepared in conjunction with PMDL Architecture & Design architectural documentation (Project ID: 2876, Rev A).

2.0 SUMMARY

An acoustic assessment has been conducted in accordance with the acoustic requirements of SEAR's Requirements and NSW EPA *Noise Policy for Industry* (2017) to assess the noise breakout for the proposed development and to set noise goals for future operation and mechanical plant.

Unattended noise measurements were conducted on site for a period of 7 days to obtain background noise levels. Following the measurement results, the noise impact was calculated to the nearest sensitive receivers based on architectural and operational plans provided to PKA.

Based on the survey conducted and calculations performed, the proposed development will comply with the *Noise Policy for Industry* (2017) and SEAR's Requirements providing the recommendations prescribed in Section 6.0 of this report are implemented.

3.0 SITE DESCRIPTION

3.1 Site Overview

St Ignatius College, Riverview, is located north of the Lane Cove River in the northern suburbs of Sydney. The site is large and contains several sports playing fields. The neighbouring properties are predominantly residential to the east, west, and north, with the southern boundary of the site contained by the Lane Cove River. 120-126 Tambourine Bay Road, Riverview are the nearest sensitive receivers and are located approximately 300 m from the proposed development. The site location and building footprint are shown in Figure 3-1.

Figure 3-1 Site Location

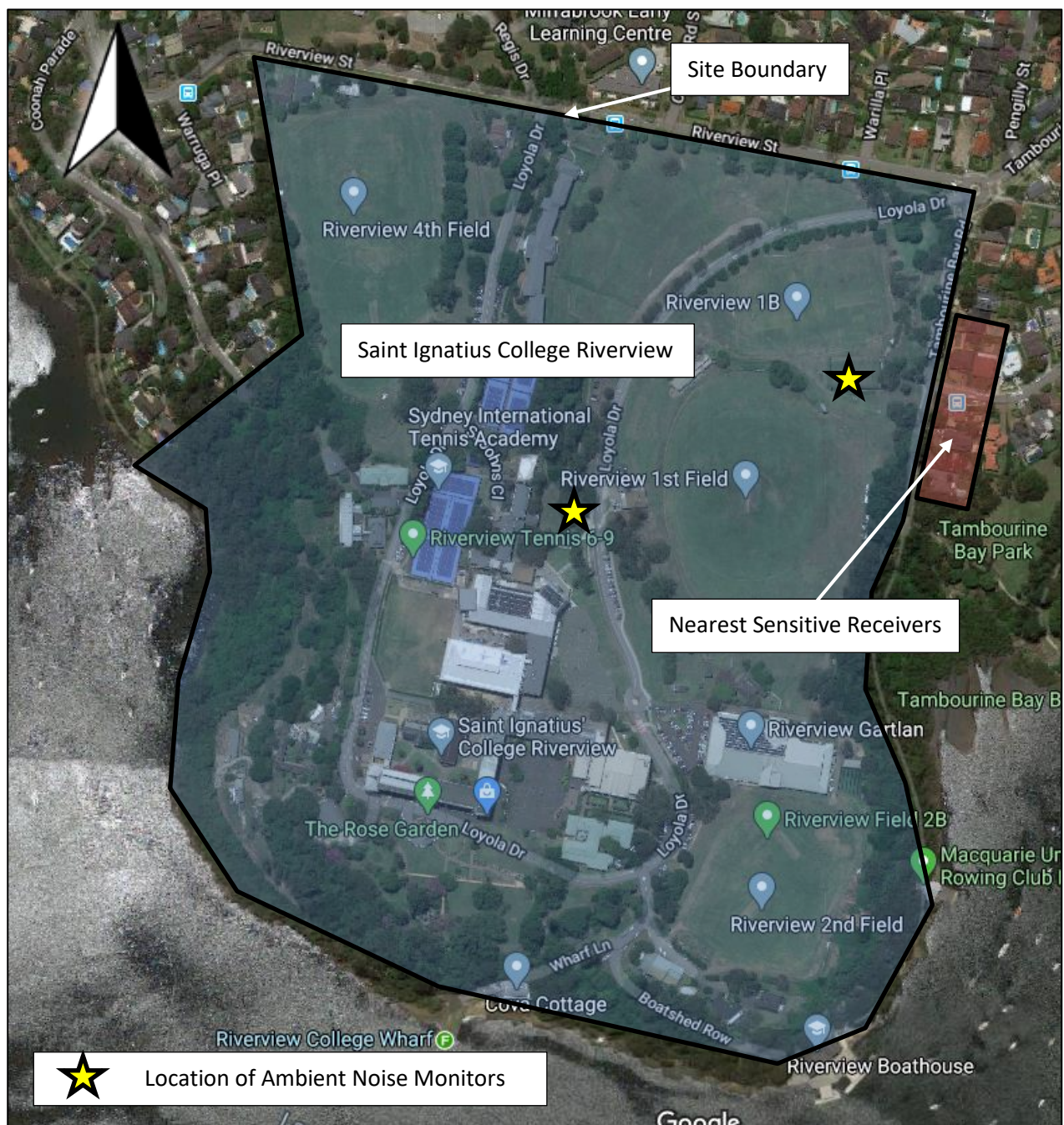
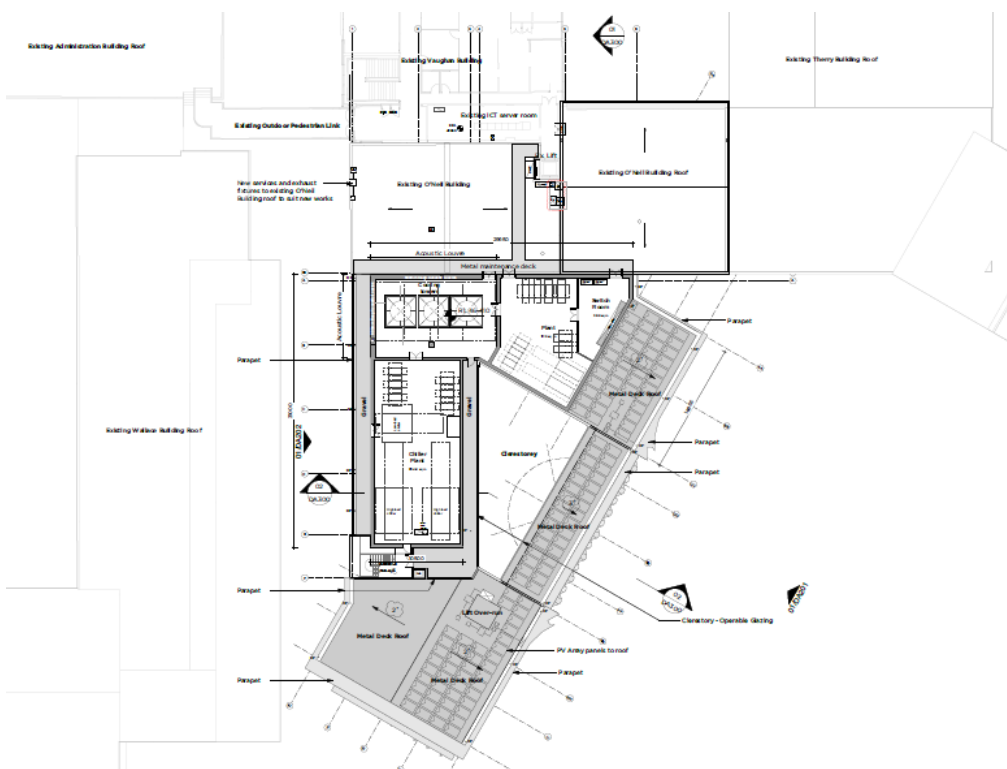


Figure 3-2 Project Location



Figure 3-3 Rooftop Floorplan



4.0 ACOUSTIC CRITERIA

4.1 SEAR's Requirements

Condition 12 of the Planning Secretary's Environmental Assessment Requirements (Reference: SSD-10424) dated 5th of February 2020 requires the following:

12. Noise and Vibration

Identify and provide a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation, construction. Outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.

Identify and assess operational noise, including consideration of and public-address system, school bell, mechanical services (e.g. air conditioning plant), use of any school hall for concerts etc. (both during and outside school hours) and any out of hours community use of school facilities, and outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.

Relevant Policies and Guidelines:

NSW Noise Policy for Industry 2017 (NSW Environment Protection Authority (EPA) Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009)

Assessing Vibration: A Technical Guideline 2006 (Department of Environment and Conservation, 2006)

Development Near Rail Corridors and Busy Roads - Interim Guideline (Department of Planning, 2008)

Australian Standard 2363:1999 Acoustics - Measurement of noise from helicopter operations.

Due to the nature and the siting/location of the project, we believe of the above policies and guidelines the following are not directly applicable to this project:

- Development Near Rail Corridors and Busy Roads - Interim Guideline (Department of Planning, 2008)
- Australian Standard 2363:1999 Acoustics - Measurement of noise from helicopter operations.

4.2 NSW EPA Noise Policy for Industry (NPfI)

Noise generated from commercial and industrial premises and from mechanical noise is generally assessed against the requirements of *Industrial Noise Policy (2000)*, which has been reviewed and superseded by the current *NSW EPA Noise Policy for Industry 2017 (NPfI)*.

The policy sets out two separate criteria to ensure environmental noise objectives are met. The first criterion considers intrusive noise to residential properties and the second is set to ensure the amenity of the land use is protected. The lower value of both criteria is considered to be the Project noise trigger level, which is the limit of the $L_{Aeq, 15min}$ noise level that must not be exceeded for the corresponding period of the day.

Amenity Criterion

To limit continuing increases in noise levels, the maximum ambient noise level within an area from commercial noise sources should not normally exceed the levels as specified in Table 2.2 of the policy for the specified time of the day. The NPfI recommends the following Amenity Noise Levels for various receiver premises.

Table 4-1 Noise Criteria - Amenity for receiver buildings

All values in dB(A)

Type of receiver	Time of day	Recommended Amenity Noise Level $L_{Aeq, (period)}$
Residential (Suburban)	Day	55
	Evening	45
	Night	40

To ensure that industrial noise levels (existing plus new) remain within the recommended amenity noise levels for an area, a project amenity noise level applies for each new source of industrial noise as follows:

Project amenity noise level for development = recommended amenity noise level **minus 5 dB(A)**.

To standardise the time periods for the intrusiveness and amenity noise levels, this policy assumes that the Amenity $L_{Aeq, 15min}$ will be taken to be equal to the $L_{Aeq, period} + 3$ decibels (dB).

Intrusiveness Criterion

The intrusiveness of a stationary noise source may be considered acceptable if the average of the maximum A-weighted levels of noise, $L_{Aeq, 15 minute}$ from the source do not exceed by more than 5dB the Rating Background Level (RBL) measured in the absence of the source. This applies during all times of the day and night. There also exists an adjustment factor to be applied as per the character of the noise source. This includes factors such as tonal, fluctuating, low frequency, impulsive, intermittent etc. qualities of noise.

The RBL is determined in accordance with Section 2.3 of the NSW EPA NPfI. The intrusiveness criterion is $L_{Aeq, 15 minute} < RBL + 5$.

Maximum Noise level event assessment

To protect the receivers from potential sleep disturbance from maximum noise level event from the premises, the following noise criteria is applicable.

Where the subject development/premises night-time noise levels at a residential location exceed:

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

4.3 EPA NSW Interim Construction Noise Guidelines (ICNG)

NSW EPA Interim Construction Noise Guideline (ICNG) is used for the assessment.

The document aims at managing noise from construction works regulated by the EPA. Details of noise limits are presented in the following Table 4-2.

Table 4-2 Noise Levels Residential Receivers (Extract from EPA ICNG)

Time of day	Management level L_{Aeq} (15 min)	Application
Recommended standard hours: Monday to Friday 7 am to 6 pm	Noise affected RBL + 10 dB	The noise affected level represents the point above which there may be some community reaction to noise. Where the predicted or measured L_{Aeq} (15 min) is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level. The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.
Saturday 8 am to 1 pm No work on Sundays or public holidays	Highly noise affected 75 dB	The highly noise affected level represents the point above which there may be strong community reaction to noise. Where noise is above this level, the relevant authority (consent, determining or regulatory) may require respite periods by restricting the hours that the very noisy activities can occur, taking into account times identified by the community when they are less sensitive to noise (such as before and after school for works near schools, or mid-morning or mid-afternoon for works near residences if the community is prepared to accept a longer period of construction in exchange for restrictions on construction times.
Outside recommended standard hours	Noise affected RBL + 5 dB	A strong justification would typically be required for works outside the recommended standard hours. The proponent should apply all feasible and reasonable work practices to meet the noise affected level. Where all feasible and reasonable practices have been applied and noise is more than 5 dB above the noise affected level, the proponent should negotiate with the community.

4.4 General Construction Vibration Criteria

During demolition and excavation there is the potential for vibration impact on the neighbouring buildings' amenity and on structures. The EPA ICNG states that human comfort (amenity) vibration is to be measured and assessed in accordance with *Assessing Vibration – a technical guideline* (DECC 2006).

In general, structural damage due to vibration can be of concern when hammering, blasting, vibration rolling, crushing, piling and other vibration inducing construction works are carried out.

The EPA ICNG does not have specific structural vibration damage criteria however the RTA *Environmental Noise Management Manual* (2001) recommends the use of the following Standards:

- British Standard BS 7385: Part 2: *Evaluation and Measurement for Vibrations in Buildings – Part 2 Guide to Damage Levels from Ground-Borne Vibration*
- AS 2187.2 *Explosives-Storage, transport and use, Part 2: Use of Explosives*
- German Standard DIN 4150, Part 3: *Structural Vibration in Buildings: Effects on Structures*

At this stage, PKA has not been made aware of geotechnical reports or traffic plans associated with the construction and associated works for this project. Only once these details have been determined can a site- and project-specific construction noise and vibration management plan be established. The demolition and construction noise impact to the nearest residential receiver will be assessed prior to the construction phase.

4.5 Operation of Public Address and School Bell

At this stage, PKA has been made aware that a public address system and school bell will be utilised and will tie back into the existing system. Detailed assessment of placement of new equipment will be coordinated during the later stages to ensure compliance with the relevant noise criteria/goals.

5.0 NOISE SURVEY

Unattended noise monitoring was conducted between 18th and 30th July 2020 to record the ambient noise levels. The monitors were programmed to store the L_n percentile noise levels for each 15-minute sampling period. Measurements were made of L_{min}, L_{max}, L₉₀, and L_{eq} and were later retrieved for analysis. The positions of noise monitors are shown in Figure 3-1. The results and summary of the noise monitoring are listed in graphical form in Appendix A of this report.

The position of the noise monitors is shown in Figure 3-1.

5.1 Instrumentation

Noise measurements were conducted using the following equipment:

- Sound analyser NTi XL2 Sound Level Meter, Serial number A2A-09467-E0.
- Svantek SV958A Sound & Vibration Analyser, Serial Number 45589.
- Sound calibrator B&K 4230, Serial number 11419.

The instruments were calibrated before and after the noise measurements and there were no adverse deviations between the two. The analysers are type 1 and comply with AS IEC 61672.2-2004. The instruments carry traceable calibration certificates.

5.2 Project Noise Criteria

Data from the noise monitors were processed to obtain the ambient noise levels and the noise goals. The more conservative noise levels recorded are used to prepare Table 5-1; presented below are the results of the ambient noise monitors.

Ambient Noise Measurements

The noise criteria defined in the Noise Policy for Industry (NPfI) is listed below. The assessment periods are defined by the NSW NPfI are Daytime: 7 am to 6 pm, Evening: 6 pm to 10 pm and Night: 10 pm to 7 am.

While we anticipate that a majority of the operations held within the school premises are to be during the daytime period, the additional criteria for outside school hours is being provided as information that can be used in future development or mechanical plant if necessary.

Table 5-1 NPfI Project Noise Trigger Levels

All values in dB(A)

Receiver Type	Period	Measured RBL (L _{A90})	Acceptable Noise Levels L _{Aeq(period)}	NSW Noise Policy for Industry Criteria		Project Noise Trigger Levels L _{Aeq15min}
				Amenity L _{Aeq15min}	Intrusiveness L _{Aeq15min}	
Residential (Sub-Urban)	Day	38	55	53	43	43
	Evening	35	45	43	40	40
	Night	31	40	38	36	36

5.3 Rooftop Plant Noise Assessment

The position of the rooftop plant is far receded within the site boundary of St Ignatius College, and will not primarily affect the nearest residences at Tambourine Bay Road. Furthermore, the plant is treated to address noise emission to nearby buildings of the school itself; we have utilised this treatment to also address potential noise emission to residential receivers. A majority of the rooftop central thermal plant is located within enclosed rooftop plant rooms, with the exception of one open-air plant room containing cooling towers. Barriers and acoustic louvres are to be employed to address noise emission from the cooling towers, with the remaining plant contained within rooftop plant rooms sufficiently noise controlled to not cause an impact at receivers.

Based on the attended noise measurements, proposed equipment data and locations, calculations were made to estimate the noise impact at the nearest residential receiver. Calculations considered the sound pressure loss due to shielding from the proposed enclosures/barriers, distance, directivity and the differences in elevations. While we anticipate that the equipment will only be operated between 7 am and 6 pm, the results of the calculations have been compared to day, evening and night time criteria.

The exact selection/specification of rooftop plant and equipment has not yet been determined, though two options for cooling towers have been proposed. The acoustic worst-case option has been selected for the following noise calculations.

Table 5-2 Noise Calculated to the receiver Boundary

All values in dB(A)

Receiver Type	Period	Combined Sound Power Level of Equipment in Open-Air Plantroom SWL	Noise Level calculated to Receiver Boundary	Project Noise Trigger Levels L _{Aeq15min}	Complies?
Residential (Sub-Urban)	Day	102	32	43	Y
	Evening			40	Y
	Night			38	Y

5.4 EPA NSW Interim Construction Noise Guidelines – Noise Goals

Based on the construction happening during normal daytime working hours 7 am to 6 pm, the noise criteria are presented in the following Table 5-3.

Table 5-3 EPA NSW Interim Construction Noise Guidelines Criteria for Site

Receivers	Daytime Background, dB(A)	Noise affected level (Criterion), dB(A)
Residential	38	48

The “Highly Noise Affected” criterion has a set level of 75 dB(A).

6.0 RECOMMENDATIONS

Mechanical Noise Controls

The treatment required to address noise attenuation of rooftop mechanical plant has been incorporated into the architectural design of the building. Treatments include plant room enclosures to a majority of rooftop plant, with these enclosures positioned to be acoustic barriers to the 3-off cooling towers located within the open-air plant room. These bounding walls to the open-air plantroom should extend a minimum 0.5m above the full height of the installed cooling towers. These plantroom walls should achieve a minimum acoustic rating of R_w 40 or greater.

In addition, acoustic louvres (equivalent to NAP 600 H-Line acoustic louvres) should bound the remaining exposed sides of the open-air plant room.

Use of building

The nature of the building and occupants' activities is one that will not cause rise to disruptive noise at the nearest residential receivers.

Public Address / School Bell

Coordination and design of the PA and school bell shall be considered during the detailed design phase.

Construction Noise and Vibration Management

Once details of the construction/demolition and associated groundworks have been determined, a detailed construction noise and vibration management plan will be prepared.

APPENDIX A NOISE MEASUREMENTS (GRAPHICAL)

11770 Riverview Ignis Project Stage 2

Project Address: [St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066](#)

Logger Location: [Attached to tree nearby to project site](#)

PKA Acoustic Consulting

		Background Noise Levels L_{A90} dB					
		Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
		Measured	Corrected	Measured	Corrected	Measured	Corrected
Thursday	18/06/2020			37.5	37.5		
Friday	19/06/2020	40.0	40.0	38.2	38.2	32.4	32.4
Saturday	20/06/2020	35.2	35.2	37.6	37.6	32.4	32.4
Sunday	21/06/2020	33.3	33.3	31.2	31.2	29.2	29.2
Monday	22/06/2020	37.9	37.9	33.2	33.2	30.7	30.7
Tuesday	23/06/2020	38.3	38.3	32.8	32.8	31.1	31.1
Wednesday	24/06/2020	39.4	39.4	35.4	35.4	31.4	31.4
Thursday	25/06/2020	38.4	38.4				
Rating Background Level (RBL)		38	38	35	35	31	31

		Existing Noise Levels L_{Aeq} dB					
		Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
		Measured	Corrected	Measured	Corrected	Measured	Corrected
Thursday	18/06/2020			47.7	47.7		
Friday	19/06/2020	56.1	56.1	45.0	45.0	46.9	46.9
Saturday	20/06/2020	50.9	50.9	44.1	44.1	37.5	37.5
Sunday	21/06/2020	48.1	48.1	37.1	37.1	40.8	40.8
Monday	22/06/2020	55.8	55.8	46.2	46.2	37.0	37.0
Tuesday	23/06/2020	55.2	55.2	47.6	47.6	38.5	38.5
Wednesday	24/06/2020	53.0	53.0	47.3	47.3	38.1	38.1
Thursday	25/06/2020	54.3	54.4				
Average Noise Level (L_{Aeq})		54	54	46	46	42	42

11770 Riverview Ignis Project Stage 2

Project Address: St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066

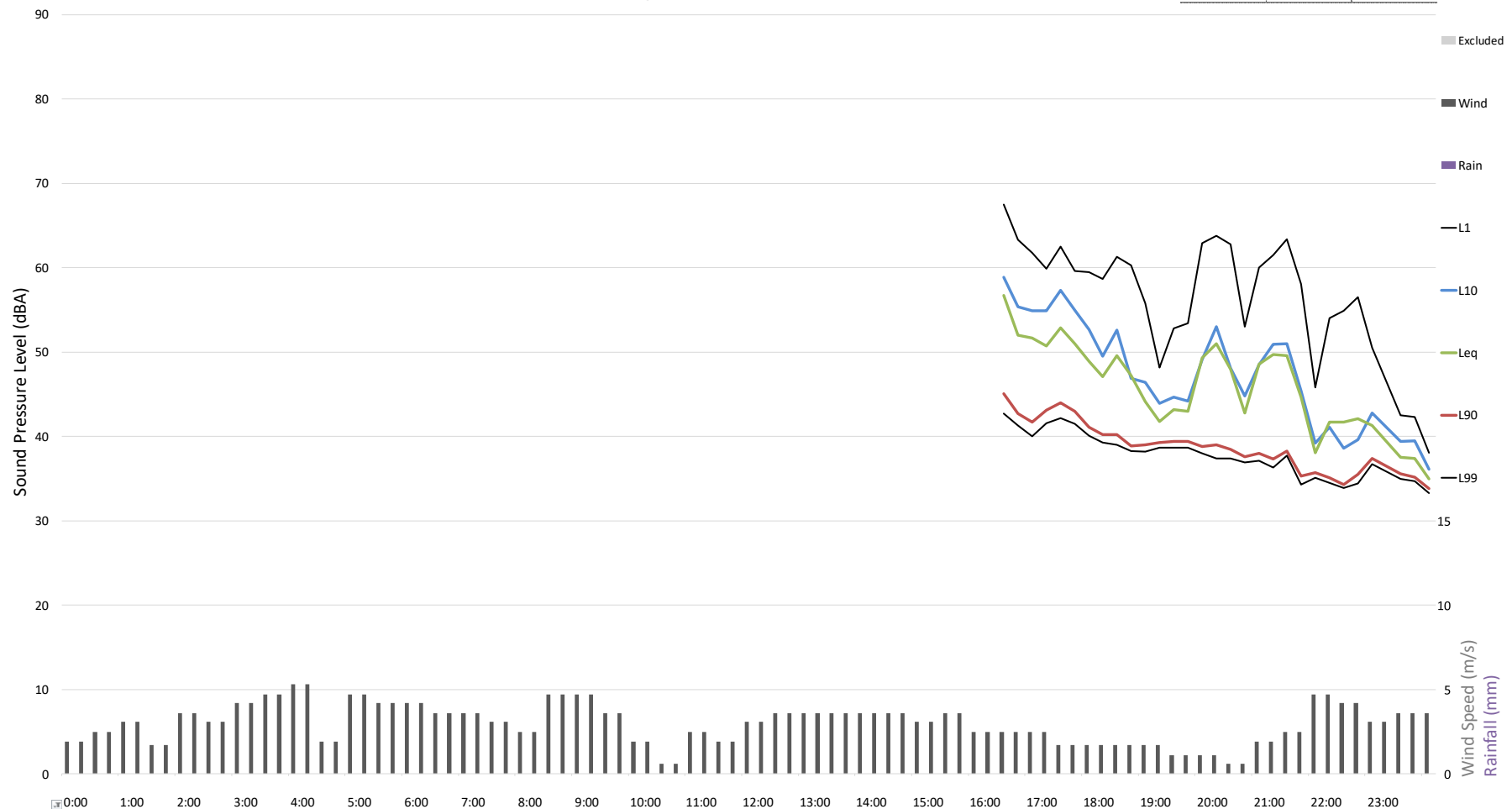
Logger Location: Attached to tree nearby to project site

BOM weather data: Sydney - Observatory Hill IDN60901

PKA Acoustic Consulting

18/06/2020 Thursday
Existing Ambient Noise Levels (dBA)

Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
Measured	Corrected	Measured	Corrected	Measured	Corrected
		47.7	47.7		
		37.5	37.5		



11770 Riverview Ignis Project Stage 2

Project Address: St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066

Logger Location: Attached to tree nearby to project site

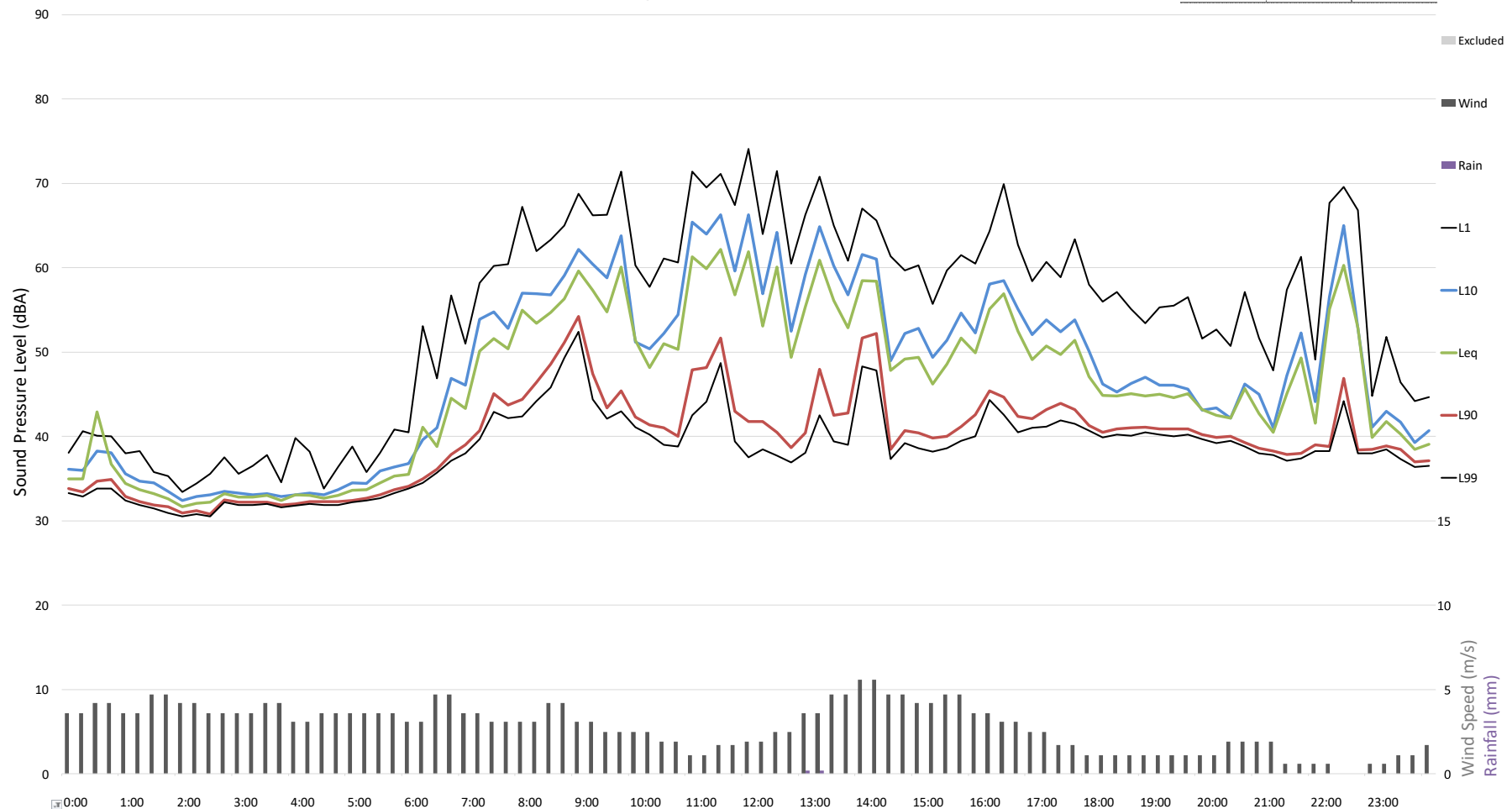
BOM weather data: Sydney - Observatory Hill IDN60901

PKA Acoustic Consulting

19/06/2020 Friday

Existing Ambient Noise Levels (dBA)

	Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
L _{Aeq} dB	56.1	56.1	45.0	45.0	46.9	46.9
L _{A90} dB	40.0	40.0	38.2	38.2	32.4	32.4




11770 Riverview Ignis Project Stage 2

Project Address: St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066

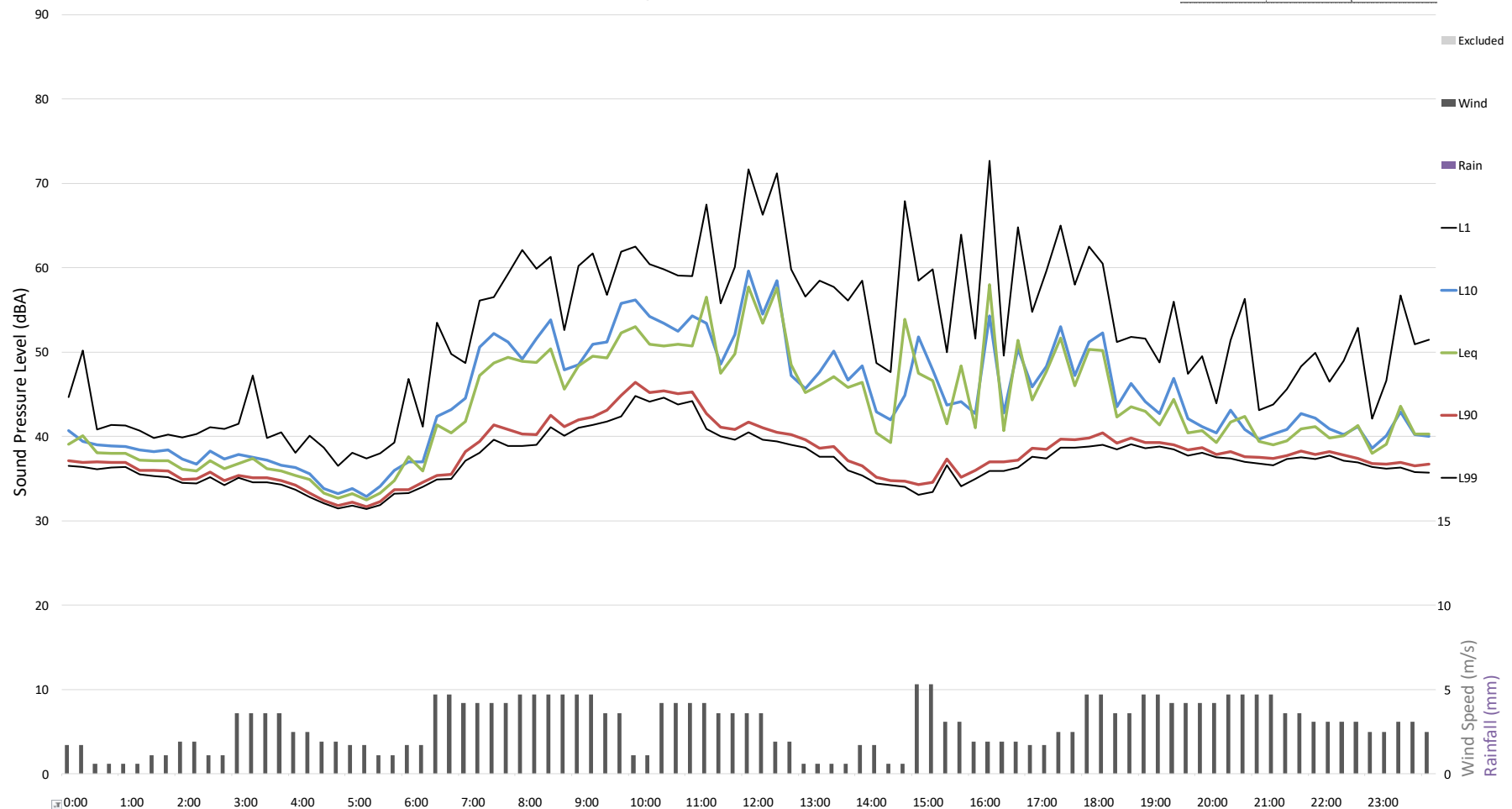
Logger Location: Attached to tree nearby to project site

BOM weather data: Sydney - Observatory Hill IDN60901

PKA Acoustic Consulting

20/06/2020  Saturday
Existing Ambient Noise Levels (dBA)

	Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
L _{Aeq} dB	50.9	50.9	44.1	44.1	37.5	37.5
L _{A90} dB	35.2	35.2	37.6	37.6	32.4	32.4



11770 Riverview Ignis Project Stage 2

Project Address: St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066

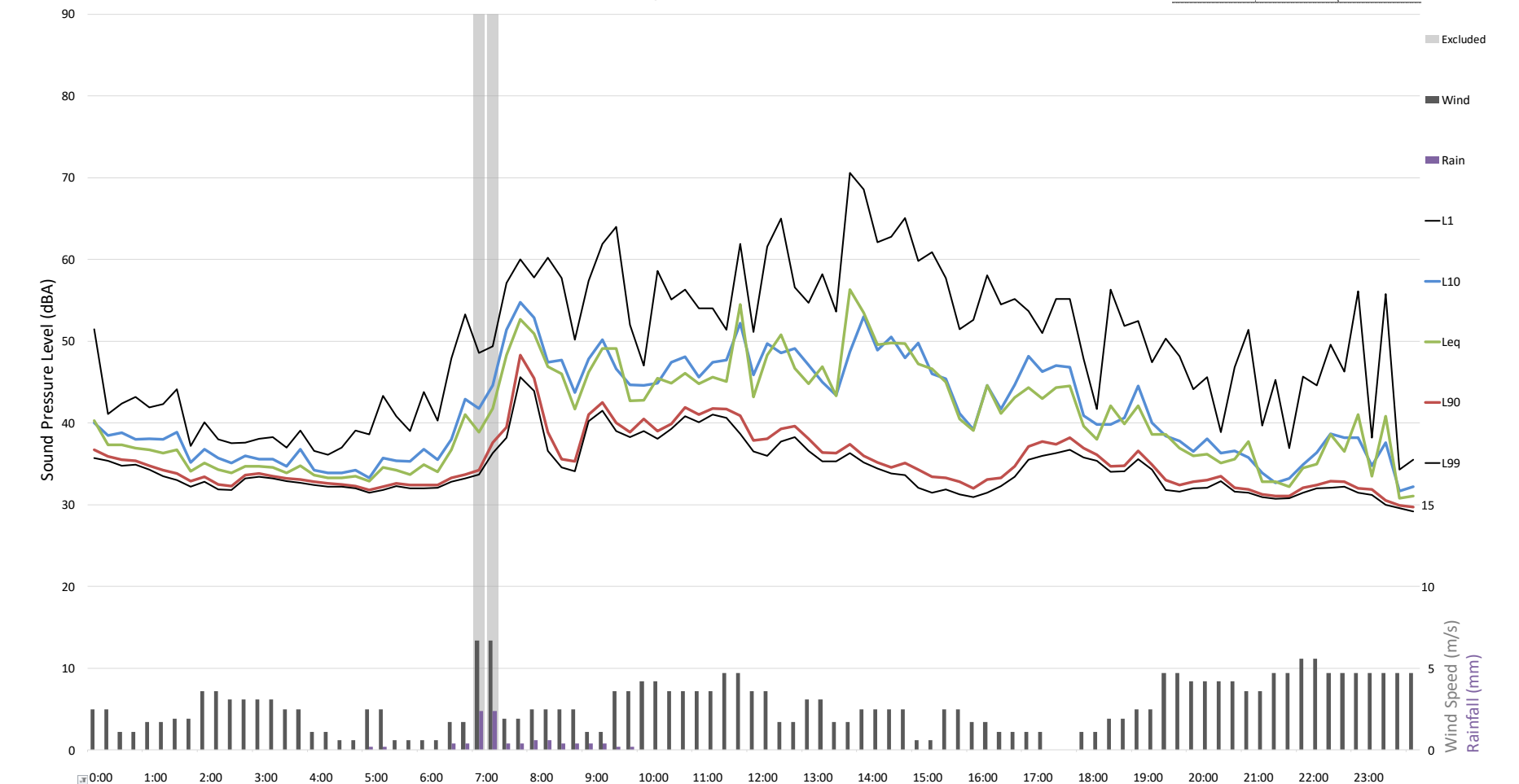
Logger Location: Attached to tree nearby to project site

BOM weather data: Sydney - Observatory Hill IDN60901

PKA Acoustic Consulting

21/06/2020 Sunday
Existing Ambient Noise Levels (dBA)

	Daytime 08:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 08:00	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
L _{Aeq} dB	48.1	48.1	37.1	37.1	40.8	40.8
L _{A90} dB	33.3	33.3	31.2	31.2	29.2	29.2



11770 Riverview Ignis Project Stage 2

Project Address: St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066

Logger Location: Attached to tree nearby to project site

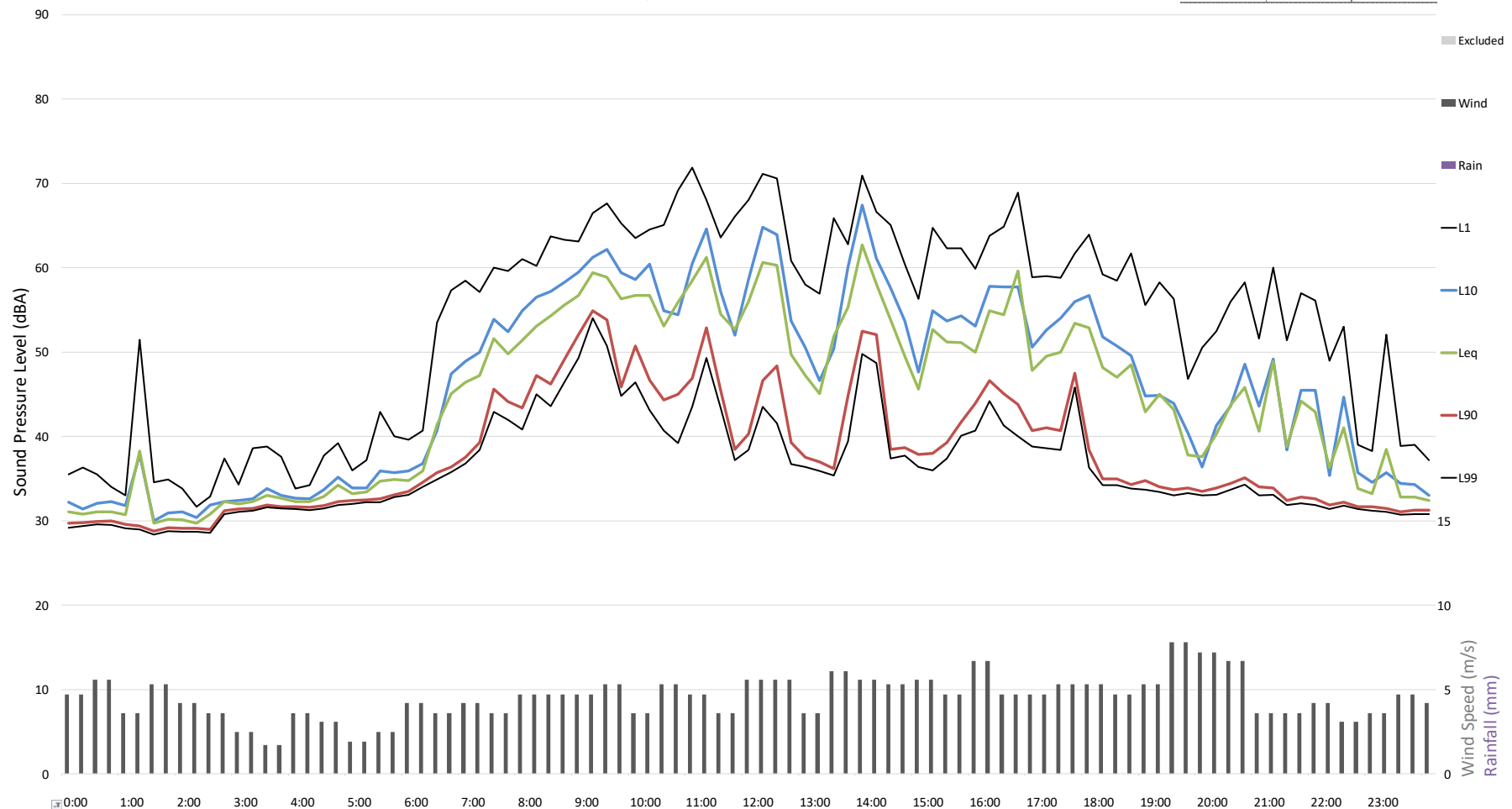
BOM weather data: Sydney - Observatory Hill IDN60901

PKA Acoustic Consulting

22/06/2020 Monday

Existing Ambient Noise Levels (dBA)

	Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
L _{Aeq} dB	55.8	55.8	46.2	46.2	37.0	37.0
L _{A90} dB	37.9	37.9	33.2	33.2	30.7	30.7



11770 Riverview Ignis Project Stage 2

Project Address: St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066

Logger Location: Attached to tree nearby to project site

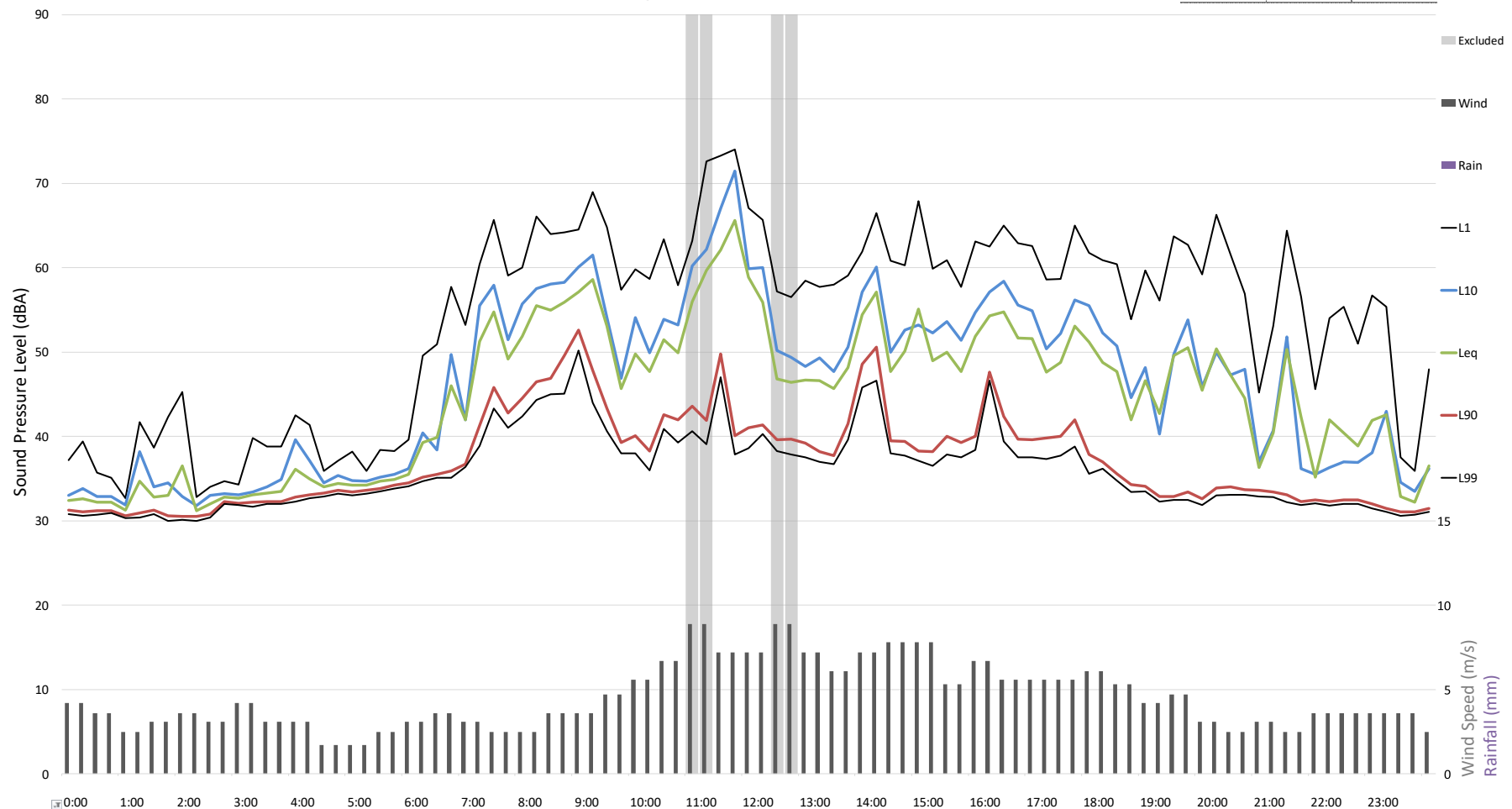
BOM weather data: Sydney - Observatory Hill IDN60901

PKA Acoustic Consulting

23/06/2020 Tuesday

Existing Ambient Noise Levels (dBA)

	Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
L _{Aeq} dB	55.2	55.2	47.6	47.6	38.5	38.5
L _{A90} dB	38.3	38.3	32.8	32.8	31.1	31.1



11770 Riverview Ignis Project Stage 2

Project Address: St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066

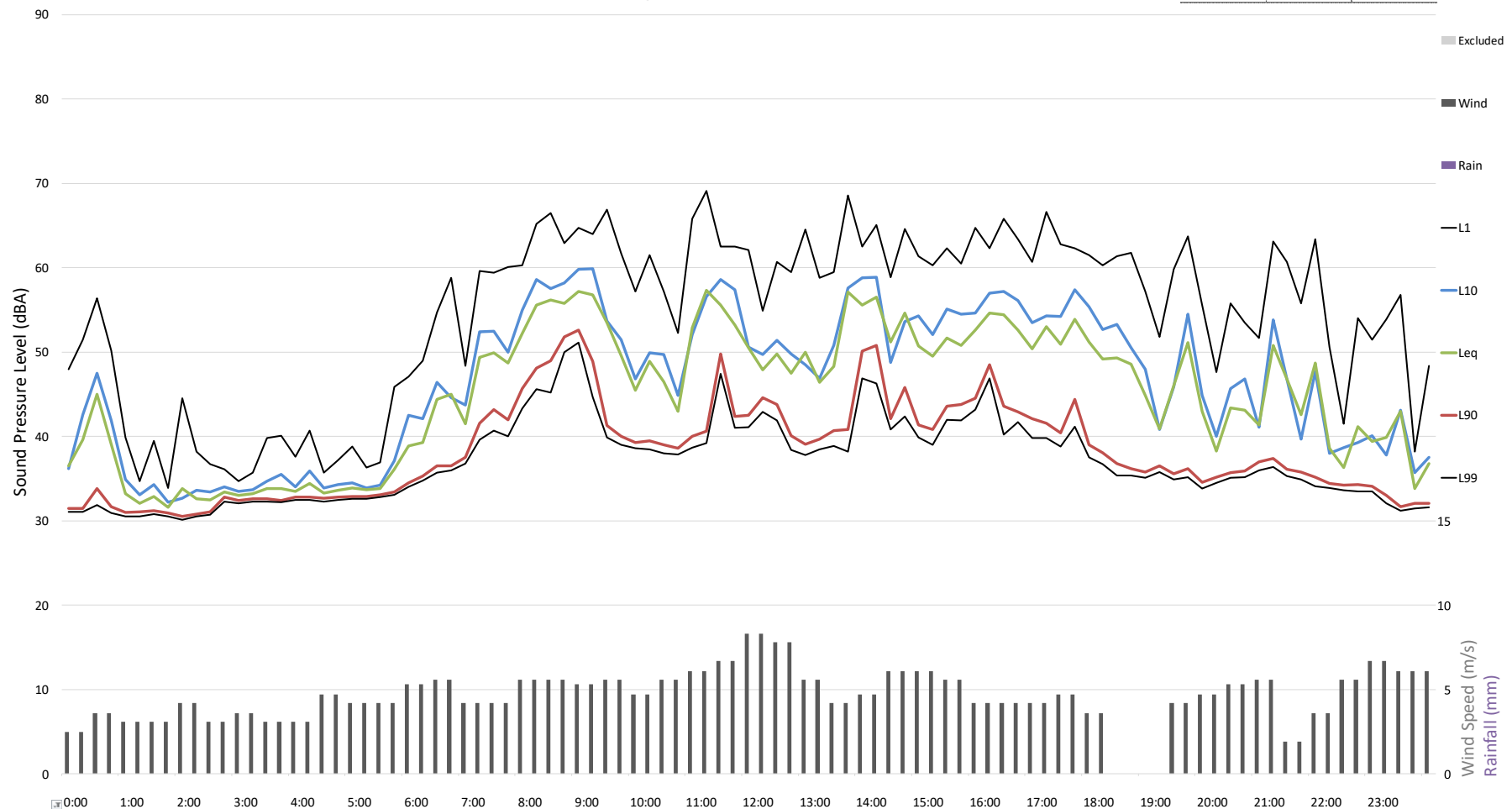
Logger Location: Attached to tree nearby to project site

BOM weather data: Sydney - Observatory Hill IDN60901

PKA Acoustic Consulting

24/06/2020 Wednesday
Existing Ambient Noise Levels (dBA)

	Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
L _{Aeq} dB	53.0	53.0	47.3	47.3	38.1	38.1
L _{A90} dB	39.4	39.4	35.4	35.4	31.4	31.4



11770 Riverview Ignis Project Stage 2

Project Address: St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066

Logger Location: Attached to tree nearby to project site

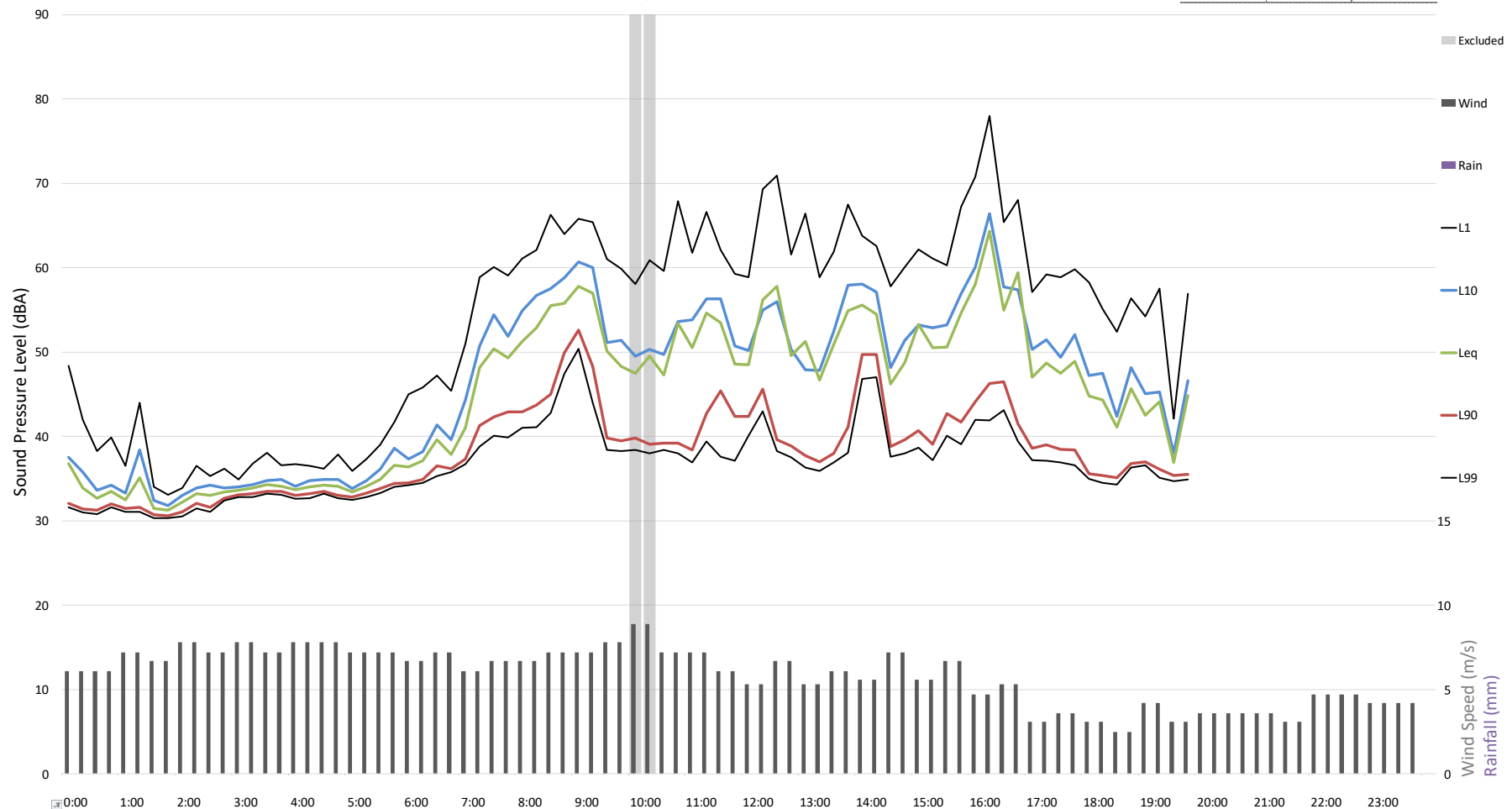
BOM weather data: Sydney - Observatory Hill IDN60901

PKA Acoustic Consulting

25/06/2020 Thursday

Existing Ambient Noise Levels (dBA)

Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
Measured	Corrected	Measured	Corrected	Measured	Corrected
L _{Aeq} dB	54.3	54.4			
L _{A90} dB	38.4	38.4			



11770 Riverview Ignis Project Stage 2

Project Address: [St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066](#)

Logger Location: [Attached to chainlink fence near cricket ground](#)

PKA Acoustic Consulting

		Background Noise Levels L_{A90} dB					
		Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
		Measured	Corrected	Measured	Corrected	Measured	Corrected
Thursday	18/06/2020			39.1	39.1		
Friday	19/06/2020	40.5	40.5	39.8	39.8	34.2	34.2
Saturday	20/06/2020	37.6	37.6	40.0	40.0	33.9	33.9
Sunday	21/06/2020	36.6	36.6	37.9	37.9	33.4	33.4
Monday	22/06/2020	41.4	41.4	38.8	38.8	34.3	34.3
Tuesday	23/06/2020						
Rating Background Level (RBL)		39	39	39	39	34	34

		Existing Noise Levels L_{Aeq} dB					
		Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
		Measured	Corrected	Measured	Corrected	Measured	Corrected
Thursday	18/06/2020			50.3	50.3		
Friday	19/06/2020	54.7	54.7	45.8	45.8	49.1	49.1
Saturday	20/06/2020	52.4	52.4	43.9	43.9	41.1	41.1
Sunday	21/06/2020	47.0	47.0	41.3	41.3	42.4	42.4
Monday	22/06/2020	59.7	59.7	45.9	45.9	41.1	41.1
Tuesday	23/06/2020						
Average Noise Level (L_{Aeq})		56	56	46	46	45	45

11770 Riverview Ignis Project Stage 2

Project Address: St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066

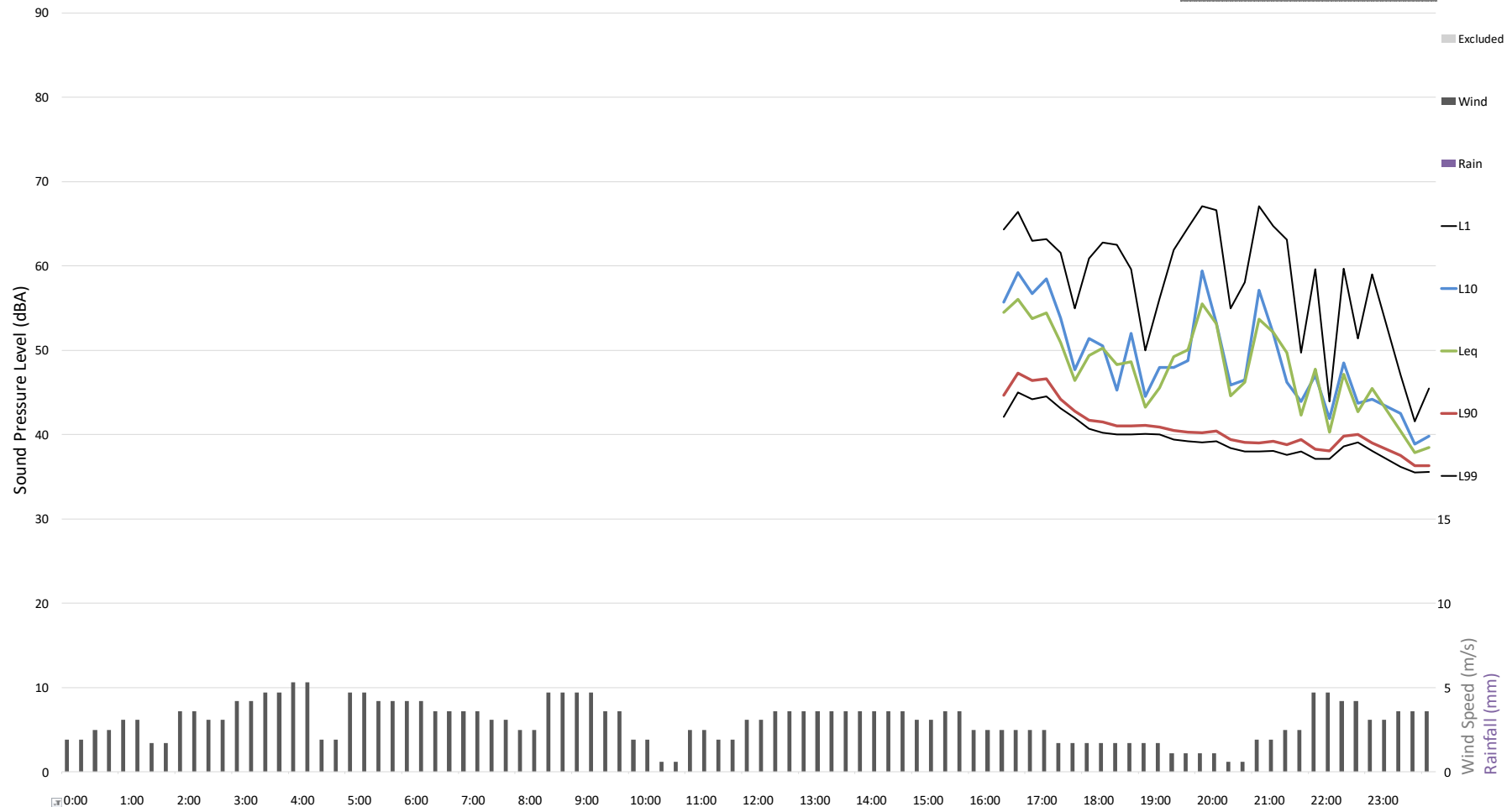
Logger Location: Attached to chainlink fence near cricket ground

BOM weather data: Sydney - Observatory Hill IDN60901

PKA Acoustic Consulting

18/06/2020 Thursday
Existing Ambient Noise Levels (dBA)

Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
Measured	Corrected	Measured	Corrected	Measured	Corrected
		50.3	50.3		
		39.1	39.1		



11770 Riverview Ignis Project Stage 2

Project Address: St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066

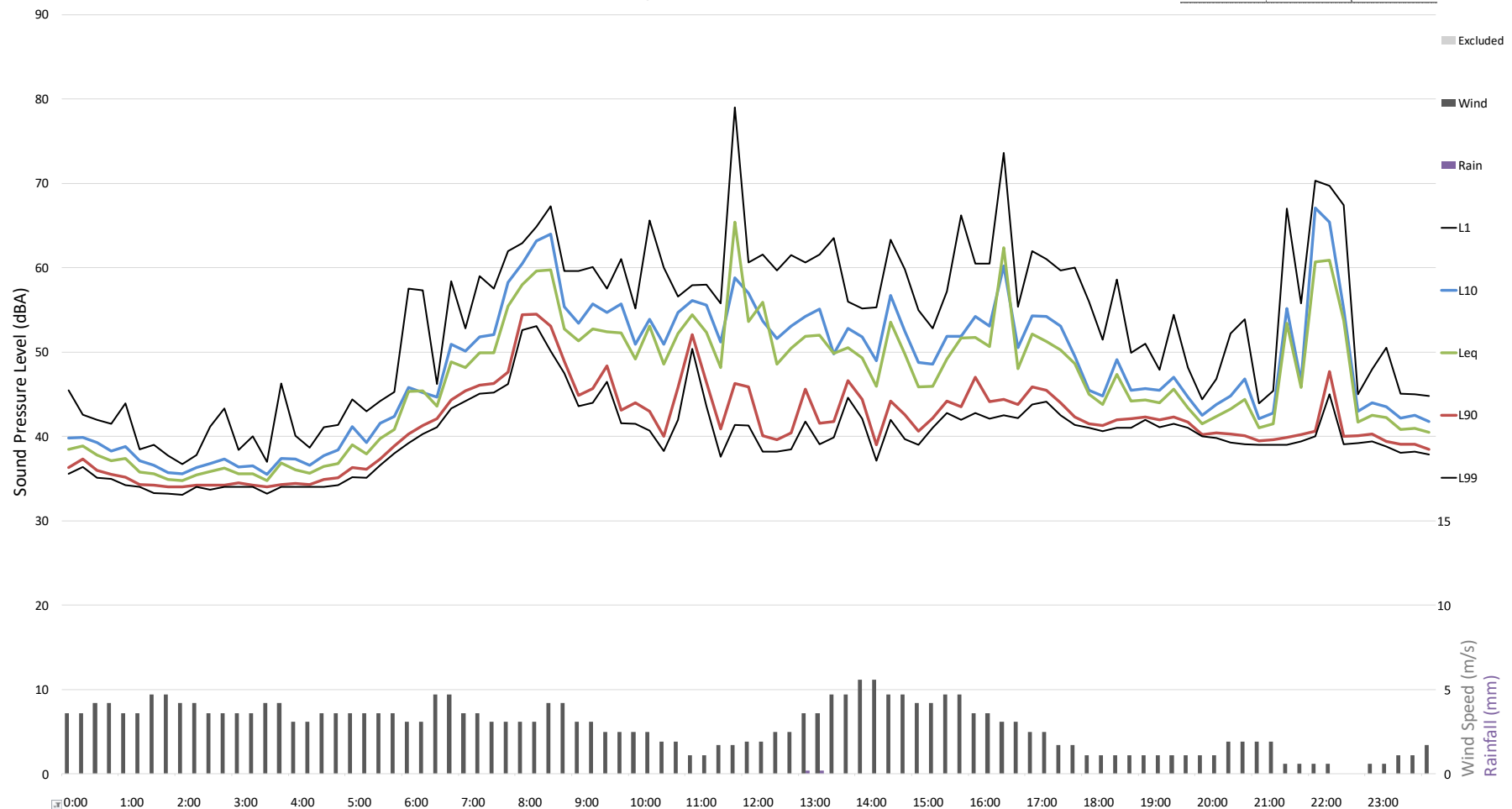
Logger Location: Attached to chainlink fence near cricket ground

BOM weather data: Sydney - Observatory Hill IDN60901

PKA Acoustic Consulting

19/06/2020 Friday
Existing Ambient Noise Levels (dBA)

	Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
L _{Aeq} dB	54.7	54.7	45.8	45.8	49.1	49.1
L _{A90} dB	40.5	40.5	39.8	39.8	34.2	34.2




11770 Riverview Ignis Project Stage 2

Project Address: St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066

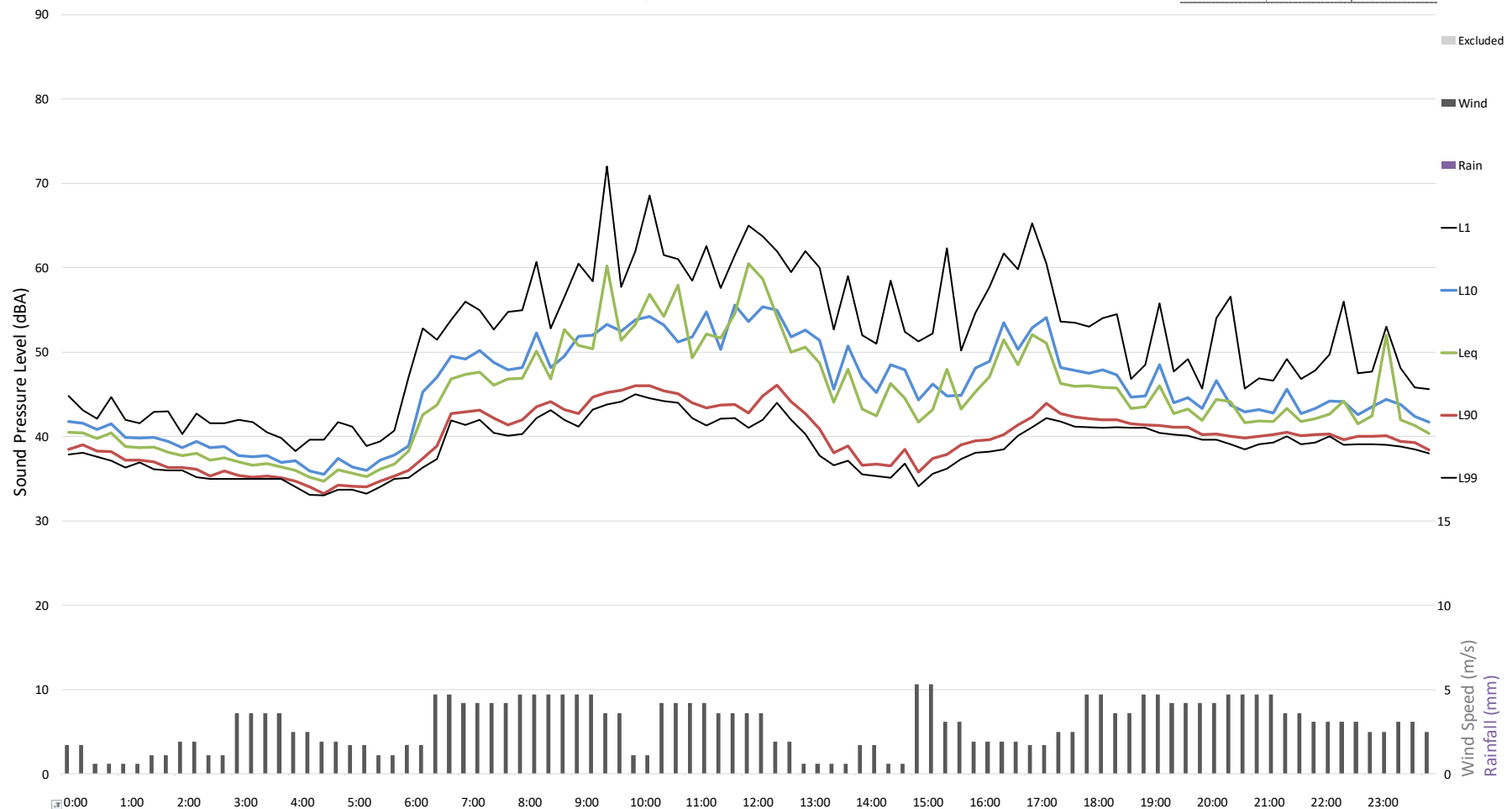
Logger Location: Attached to chainlink fence near cricket ground

BOM weather data: Sydney - Observatory Hill IDN60901

PKA Acoustic Consulting

20/06/2020  Saturday
Existing Ambient Noise Levels (dBA)

	Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
L _{Aeq} dB	52.4	52.4	43.9	43.9	41.1	41.1
L _{A90} dB	37.6	37.6	40.0	40.0	33.9	33.9



11770 Riverview Ignis Project Stage 2

Project Address: St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066

Logger Location: Attached to chainlink fence near cricket ground

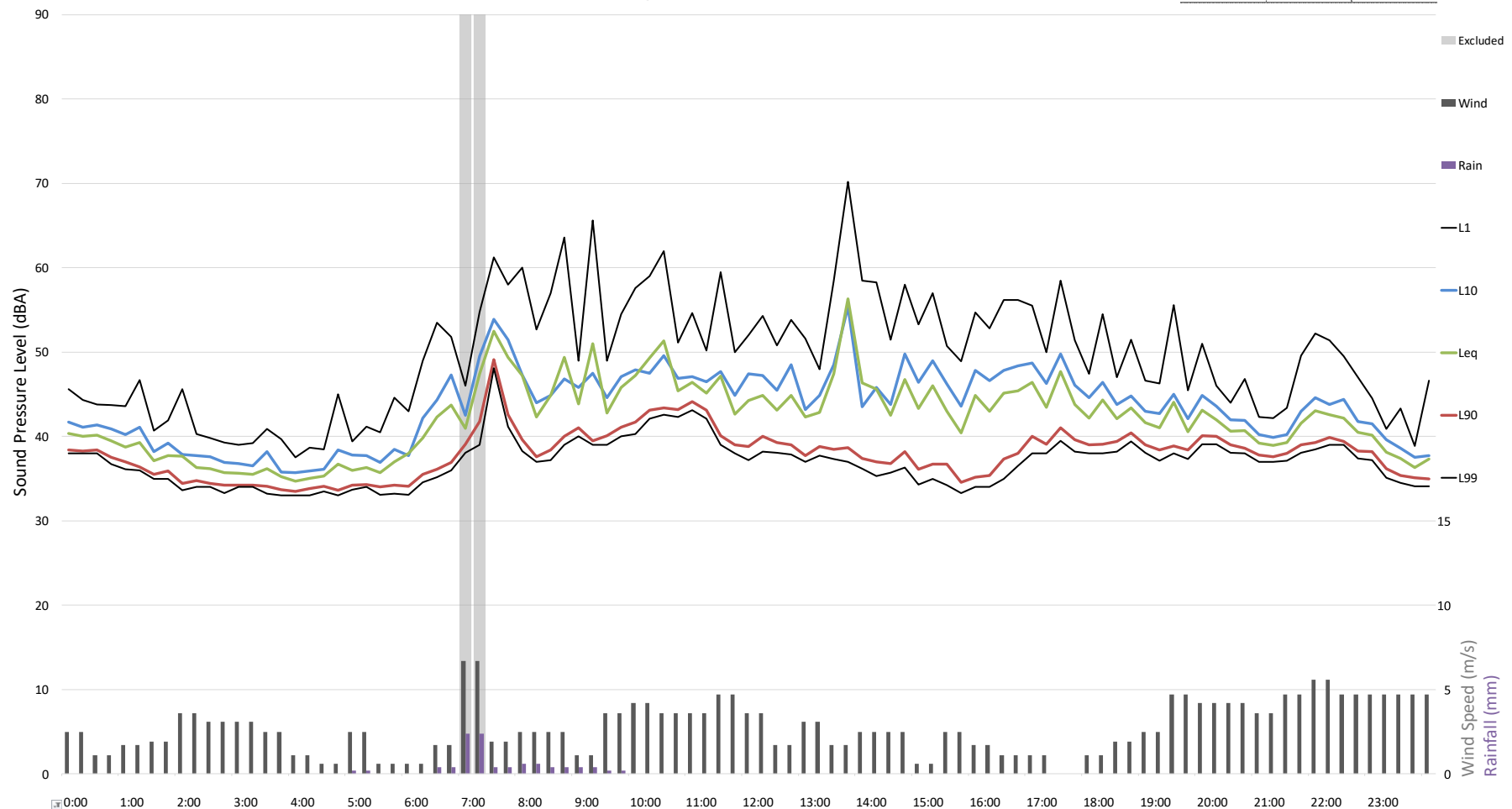
BOM weather data: Sydney - Observatory Hill IDN60901

PKA Acoustic Consulting

21/06/2020 Sunday

Existing Ambient Noise Levels (dBA)

	Daytime 08:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 08:00	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
L _{Aeq} dB	47.0	47.0	41.3	41.3	42.4	42.4
L _{A90} dB	36.6	36.6	37.9	37.9	33.4	33.4



11770 Riverview Ignis Project Stage 2

Project Address: St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066

Logger Location: Attached to chainlink fence near cricket ground

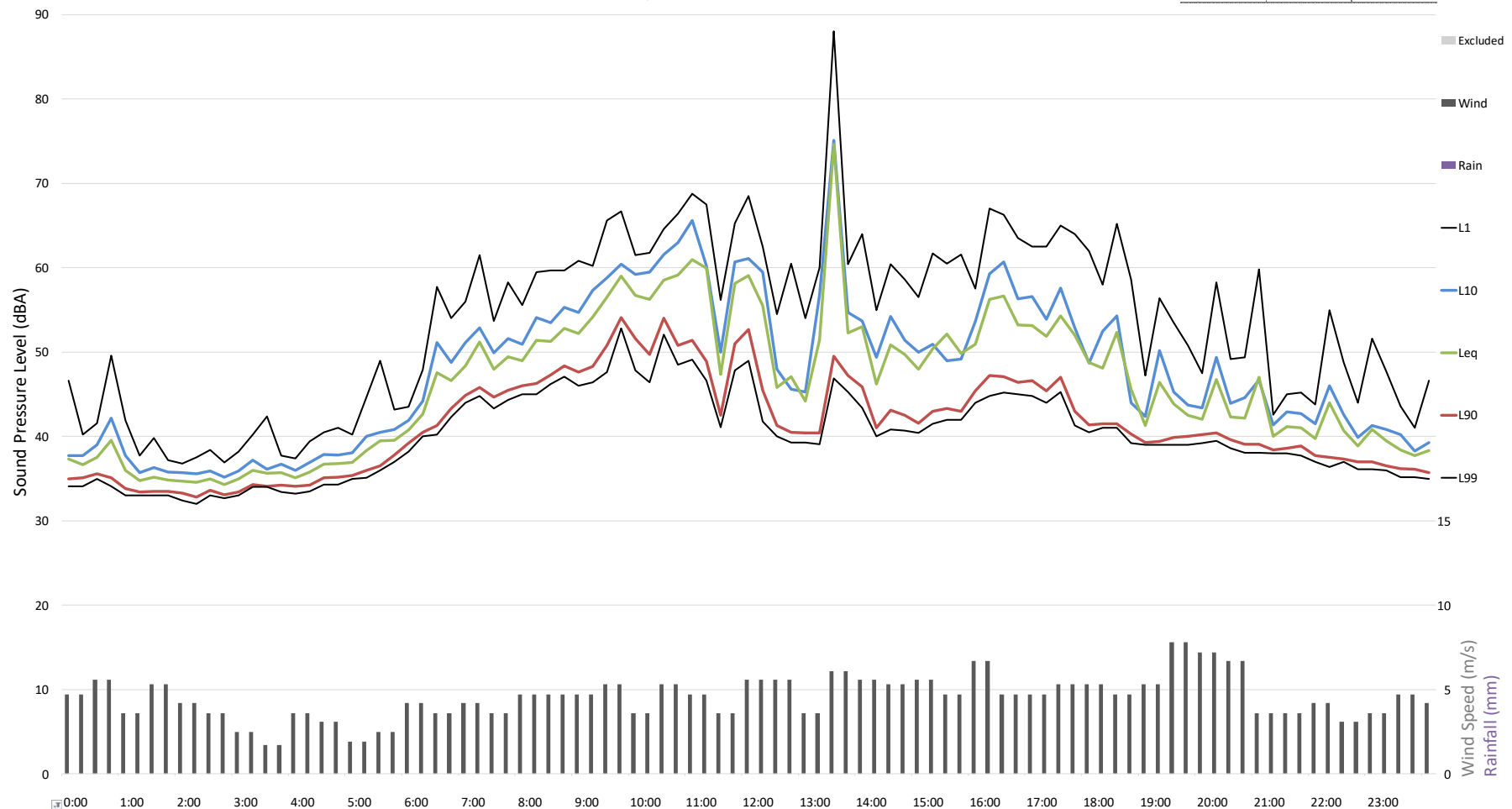
BOM weather data: Sydney - Observatory Hill IDN60901

PKA Acoustic Consulting

22/06/2020 Monday

Existing Ambient Noise Levels (dBA)

	Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
	Measured	Corrected	Measured	Corrected	Measured	Corrected
L _{Aeq} dB	59.7	59.7	45.9	45.9	41.1	41.1
L _{A90} dB	41.4	41.4	38.8	38.8	34.3	34.3



11770 Riverview Ignis Project Stage 2

Project Address: St Ignatius, Tambourine Bay Rd, Lane Cove NSW 2066

Logger Location: Attached to chainlink fence near cricket ground

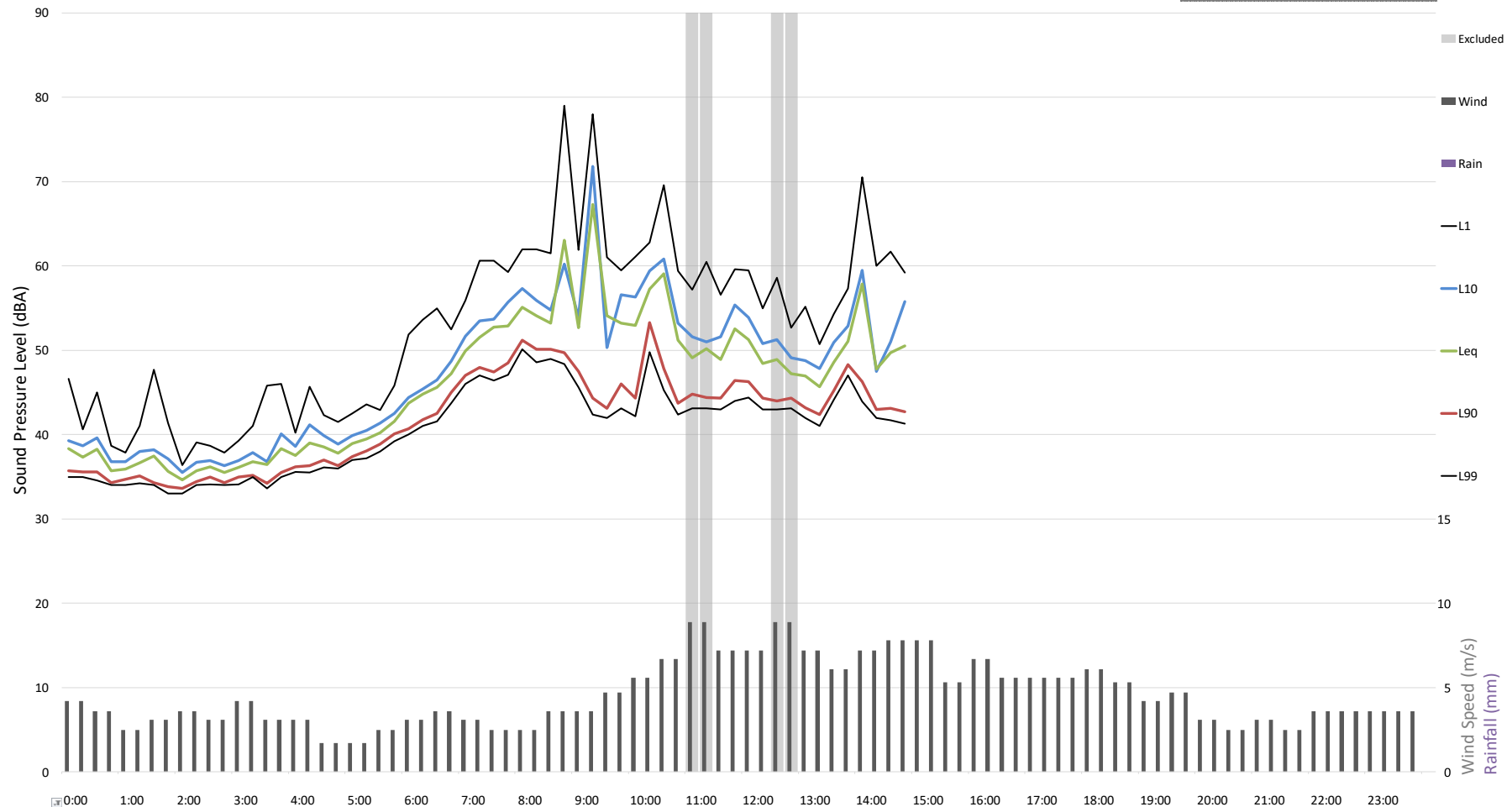
BOM weather data: Sydney - Observatory Hill IDN60901

PKA Acoustic Consulting

23/06/2020 Tuesday

Existing Ambient Noise Levels (dBA)

Daytime 07:00 - 18:00		Evening 18:00 - 22:00		Nighttime 22:00 - 07:00	
Measured	Corrected	Measured	Corrected	Measured	Corrected
L _{Aeq} dB					
L _{A90} dB					





PO Box 345, Lane Cove 1595

+612 9460 6824 — admin@pka.com.au