# Noise Assessment

Proposed Modification to Operating Hours McDonald's Operation 1-21 Cranebrook Road Cranebrook, NSW.



# **Document Information**

# **Noise Assessment**

Proposed Modification to Operating Hours

McDonald's Operation

1-21 Cranebrook Road

Cranebrook, NSW

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1 Introduction

Muller Acoustic Consulting Pty Ltd (MAC) has been commissioned by SLR Consulting Australia Pty Ltd

(SLR) to prepare a Noise Assessment (NA) to quantify emissions from the proposed 24 hour operation

of the existing McDonald's Operation (the 'operation') located at 1-21 Cranebrook Road, Cranebrook,

NSW.

The assessment has been undertaken in accordance with the following documents:

NSW Environment Protection Authority (EPA), Noise Policy for Industry (NPI) 2017;

Australian Standard AS 1055:2018 - Acoustics - Description and measurement of

environmental noise - General Procedures; and

International Standard ISO 9613:1993 - Acoustics - Attenuation of sound during propagation

outdoors.

A glossary of terms, definitions and abbreviations used in this report is provided in Appendix A.

1.1 Proposal

The NA has quantified potential operational noise emissions pertaining to customer vehicles using the

drive-thru and car park, the customer ordering displays (CODs) and mechanical plant to surrounding

residential receivers during the night assessment period.

To quantify the noise emissions from the operation, attended noise monitoring was undertaken during

the 12 month, 24-hour operation trial period at the nearest residential receivers to the operation. Where

required the NA recommends reasonable and feasible noise controls for the operation.

Truck movements associated with consumable / stock deliveries and waste collection are not anticipated

to change as a result of this application.

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#### 2 Project Description

#### 2.1 General

The operation is located at 1-21 Cranebrook Road, Cranebrook, NSW. This locality comprises primarily commercial and residential land uses. It is noted that commercial receivers are not anticipated to be affected as a result of the operation as they will be unoccupied during the night assessment period. Figure 1 provides a locality plan showing the position of surrounding noise sensitive receivers in relation to the operation site.

#### 2.2 Proposed Activities

There are several key activities associated with the operation that have the potential to generate acoustic impacts on nearby receivers. **Table 1** provides a summary of operation noise sources and the assessment period in which they propose to occur.

Table 1 Noise Generating Activities					
Activity/Source	Period <sup>1</sup>	Operational			
Customer light vehicles (customers)	Night	✓			
Drive-Thru and COD Operations	Night	✓			
Mechanical Plant	Night	✓			

Note 1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods



# FIGURE 1 LOCALITY PLAN REF: MAC211353

KEY



LOGGER LOCATION



ATTENDED MONITORING LOCATION



SITE LOCATION



3 Noise Policy and Guidelines

3.1 Noise Policy for Industry

The EPA released the Noise Policy for Industry (NPI) in October 2017 which provides a process for

establishing noise criteria for consents and licenses enabling the EPA to regulate noise emissions from

scheduled premises under the Protection of the Environment Operations Act 1997.

The objectives of the NPI are to:

provide noise criteria that is used to assess the change in both short term and long term noise

levels;

provide a clear and consistent framework for assessing environmental noise impacts from

industrial premises and industrial development proposals;

promote the use of best-practice noise mitigation measures that are feasible and reasonable

where potential impacts have been identified; and

support a process to guide the determination of achievable noise limits for planning approvals

and/or licences, considering the matters that must be considered under the relevant legislation

(such as the economic and social benefits and impacts of industrial development).

The policy sets out a process for industrial noise management involving the following key steps:

1. Determine the Project Noise Trigger Levels (PNTLs) (ie criteria) for a development. These are the

levels (criteria), above which noise management measures are required to be considered. They are

derived by considering two factors: shorter-term intrusiveness due to changes in the noise

environment; and maintaining the noise amenity of an area.

2. Predict or measure the noise levels produced by the development with regard to the presence of

annoying noise characteristics and meteorological effects such as temperature inversions and wind.

3. Compare the predicted or measured noise level with the PNTL, assessing impacts and the need for

noise mitigation and management measures.

4. Consider residual noise impacts - that is, where noise levels exceed the PNTLs after the application

of feasible and reasonable noise mitigation measures. This may involve balancing economic, social

and environmental costs and benefits from the proposed development against the noise impacts,

including consultation with the affected community where impacts are expected to be significant.

5. Set statutory compliance levels that reflect the best achievable and agreed noise limits for the development.

6. Monitor and report environmental noise levels from the development.

3.1.1 Project Noise Trigger Levels (PNTL)

The policy sets out the procedure to determine the PNTLs relevant to an industrial development. The

PNTL is the lower (ie, the more stringent) of the Project Intrusiveness Noise Level (PINL) and Project

Amenity Noise Level (PANL) determined in accordance with Section 2.3 and Section 2.4 of the NPI.

3.1.2 Project Intrusiveness Noise Level (PINL)

The PINL (LAeq(15min)) is the RBL + 5dB and seeks to limit the degree of change a new noise source

introduces to an existing environment. Hence, when assessing intrusiveness, background noise levels

need to be measured.

Background noise levels need to be determined before intrusive noise can be assessed. The NPI states

that background noise levels to be measured are those that are present at the time of the noise

assessment and without the subject development operating. For the assessment of modifications to

existing premises, the noise from the existing premises should be excluded from background noise

measurements. It is noted that the exception is where the premises has been operating for a significant

period of time and is considered a normal part of the acoustic environment; it may be included in the

background noise assessment under the following circumstances:

the development must have been operating for a period in excess of 10 years in the assessment

period/s being considered and is considered a normal part of the acoustic environment; and,

the development must be operating in accordance with noise limits and requirements imposed

in a consent or licence and/or be applying best practice.

Where a project intrusiveness noise level has been derived in this way, the derived level applies for a

period of 10 years to avoid continuous incremental increases in intrusiveness noise levels. This approach

is consistent with the purpose of the intrusiveness noise level to limit significant change in the acoustic

environment. The purpose of the project amenity noise level is to moderate against background noise

creep.

3.1.3 Project Amenity Noise Level (PANL)

The PANL is relevant to a specific land use or locality. To limit continuing increases in intrusiveness

levels, the ambient noise level within an area from all combined industrial sources should remain below

the recommended amenity noise levels specified in Table 2.2 (of the NPI). The NPI defines two

categories of amenity noise levels:

Amenity Noise Levels (ANL) – are determined considering all current and future industrial noise

within a receiver area; and

Project Amenity Noise Level (PANL) – is the recommended level for a receiver area, specifically

focusing the project being assessed.

Additionally, Section 2.4 of the NPI states: "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":

**PANL** for new industrial developments = recommended **ANL** minus 5dBA.

The following exceptions apply when deriving the PANL:

areas with high traffic noise levels;

proposed developments in major industrial clusters;

existing industrial noise and cumulative industrial noise effects; and

greenfield sites.

The NPI states with respect to high traffic noise areas:

The level of transport noise, road traffic noise in particular, may be high enough to make noise from an

industrial source effectively inaudible, even though the LAeq noise level from that industrial noise source

may exceed the project amenity noise level. In such cases the project amenity noise level may be derived

from the LAeq, period(traffic) minus 15 dB(A).

Where relevant this assessment has considered influences of traffic with respect to amenity noise levels

(ie areas where existing traffic noise levels are 10dB greater than the recommended amenity noise level).

The recommended amenity noise levels as per Table 2.2 of the NPI are reproduced in Table 2.

Table 2 Amenity Criteria							
Receiver Type	Noise Amenity Area	Time of day	Recommended amenity noise level dB LAeq(period)				
		Day	50				
	Rural	Evening	45				
		Night	40				
		Day	55				
Residential	Suburban	Evening	45				
		Night	40				
		Day	60				
	Urban	Evening	50				
		Night	45				
Hotels, motels, caretakers'			5dB above the recommended amenity				
quarters, holiday	See column 4	See column 4	noise level for a residence for the				
accommodation, permanent	See column 4	See Column 4	relevant noise amenity area and time				
resident caravan parks.			of day				
0.11.01		Noisiest 1-hour	35 (internal)				
School Classroom	All	period when in use	45 (external)				
Hospital ward							
- internal	All	Noisiest 1-hour	35				
- external	All	Noisiest 1-hour	50				
Place of worship - internal	All	When in use	40				
Passive Recreation	All	When in use	50				
Active Recreation	All	When in use	55				
Commercial premises	All	When in use	65				
Industrial	All	When in use	70				

Notes: The recommended amenity noise levels refer only to noise from industrial noise sources. However, they refer to noise from all such sources at the receiver location, and not only noise due to a specific project under consideration. The levels represent outdoor levels except where otherwise stated.

Types of receivers are defined as rural residential; suburban residential; urban residential; industrial interface; commercial; industrial – see Table 2.3 and Section 2.7 of the NPI.

Note: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

3.1.4 Maximum Noise Level Assessment

The potential for sleep disturbance from maximum noise level events from a project during the night-

time period needs to be considered. The NPI considers sleep disturbance to be both awakenings and

disturbance to sleep stages.

Where night-time noise levels from a development/premises at a residential location exceed the following

criteria, a detailed maximum noise level event assessment should be undertaken:

LAeq(15min) 40dB or the prevailing RBL plus 5dBA, whichever is the greater, and/or

LAmax 52dB or the prevailing RBL plus 15dBA, whichever is the greater.

A detailed assessment should cover the maximum noise level, the extent to which the maximum noise

level exceeds the rating background noise level, and the number of times this happens during the night-

time period.

Other factors that may be important in assessing the impacts on sleep disturbance include:

how often the events would occur;

the distribution of likely events across the night-time period and the existing ambient maximum

events in the absence of the development;

whether there are times of day when there is a clear change in the noise environment (such as

during early morning shoulder periods); and

current understanding of effects of maximum noise level events at night.

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#### 4 Noise Criteria

#### 4.1 Background Noise Environment

#### 4.1.1 Unattended Noise Monitoring

To quantify the existing background noise environment of the area, unattended noise monitoring was conducted at an offsite location, adjacent to 728-738 The Northern Road, Llandilo, NSW (L1). The selected monitoring is location is shown in **Figure 1**, is considered representative of surrounding receivers as per Fact Sheet B1.1 of the NPI and is located away from the site to ensure the operation does not influence the ambient noise levels.

The unattended noise survey was conducted in general accordance with the procedures described in Australian Standard AS 1055:2018, "Acoustics - Description and Measurement of Environmental Noise".

The measurements were carried out using a Svantek 957 noise analyser from Thursday 28 May 2021 to Wednesday 9 June 2021. Observations on-site identified the surrounding locality was typical of a suburban environment, with passing traffic noise audible in the area. Calibration of all instrumentation was checked prior to and following measurements. Drift in calibration did not exceed ±0.5dBA. All equipment carried appropriate and current NATA (or manufacturer) calibration certificates.

Data affected by adverse meteorological conditions have been excluded from the results in accordance with methodologies provided in Fact Sheet A4 of the NPI. Residential receptors situated in surrounding area have been classified under the EPA's suburban amenity category. This criterion is used in conjunction with the intrusiveness criteria to determine the limiting criteria. A summary of measured background noise levels and derived intrusive criteria are summarised in **Table 3** and plotted in graph format along with wind speed and rainfall for the monitoring period in **Appendix B**. Calibration certificates of the sound level meters used for this project are available on request.

Table 3 Background Noise Monitoring Summary							
	Measured ba	ckground noise le	vel, dB RBL	М	easured, dB LAed	I	
Location	Day	Evening	Night	Day	Evening	Night	
	7am to 6pm	6pm to 10pm	10pm to 7am	7am to 6pm	6pm to 10pm	10pm to 7am	
L1	48	42	30	67	63	61	

Note: Excludes periods of wind or rain affected data. Meteorological data obtained from the Bureau of Meteorology station Penrith Lakes AWS 33.7°S 150.67°E 25\*m AMSL.

Note 1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

#### 4.2 Operational Noise Criteria

#### 4.2.1 Project Intrusiveness Noise Levels

The Project Intrusiveness Noise Levels (PINLs) for the project are presented in **Table 4** and have been determined based on the RBL +5dBA and applies to residential receivers only.

Table 4 Intrusiveness Noise Levels				
Desciver Type	Period <sup>1</sup>	Measured RBL	PINL	
Receiver Type	Period	dB LA90	dB LAeq(15min)	
Residential	Night	30	35	

Note: As per Section 2.1 of the NPI, Intrusiveness Noise Levels only apply to residences.

#### 4.2.2 Project Amenity Noise Levels

The Project Amenity Noise Levels (PANLs) for residential receivers potentially affected by the project are presented in **Table 5**.

Table 5 Amenit	Table 5 Amenity Noise Levels and Project Amenity Noise Levels							
Doggiver Type	Noise Amenity	Assessment	Recommended ANL	PANL	PANL			
Receiver Type	Area	Period <sup>1</sup>	dB LAeq(period) <sup>2</sup>	dB LAeq(period) <sup>3</sup>	LAeq(15min) <sup>4</sup>			
Residential	Suburban	Night	40	46	49			

Note 1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

#### 4.2.3 Project Noise Trigger Levels

The Project Noise Trigger Levels (PNTLs) are the lower of either the PINL or the PANL. **Table 6** presents the derivation of the PNTLs in accordance with the methodologies outlined in the NPI.

Table 6 Project Noise Trigger Levels							
Receiver Type	Period <sup>1</sup>	PINL	PANL	PNTL			
Receiver Type	Period	dB LAeq(15min)	dB LAeq(15min)	dB LAeq(15min)			
Residential	Night	35	49	35			

Note 1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Note 1: Day - the period from 7am to 6pm Monday to Saturday or 8am to 6pm on Sundays and public holidays; Evening - the period from 6pm to 10pm; Night - the remaining periods.

Note 2: Recommended amenity noise levels as per Table 2.2 of the NPI.

Note 3: LA<sub>eq,period</sub> (traffic) as per section 2.4.1 of the NPI (i.e. existing LA<sub>eq</sub> traffic -15dB).

Note 4: Includes a +3dB adjustment to the amenity period level to convert to a 15-minute assessment period as per Section 2.2 of the NPI.

#### 4.3 Maximum Noise Assessment Trigger Levels

The maximum noise trigger levels shown in **Table 7** are based on night time RBLs and trigger levels as per Section 2.5 of the NPI. The trigger levels will be applied to transient noise events that have the potential to cause sleep disturbance.

#### Table 7 Maximum Noise Assessment Trigger Levels

# Residential Receivers LAeq(15min) LAmax 40dB LAeq(15min) or RBL + 5dB 52dB LAmax or RBL + 15dB Trigger 40 Trigger 52 RBL 30+5dB 35 RBL 30+15dB 45

Highest

52

Note: Monday to Saturday; Night 10pm to 7am. On Sundays and Public Holidays; Night 10pm to 8pm.

40

Note: As per Section 2.5 of the NPI, the highest of the two criteria are adopted as the trigger level.

Highest

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5 Attended Noise Monitoring Measurements

To quantify the noise emissions from the operation, attended noise monitoring was undertaken during

the 12 month, 24 hour operation trial period at the nearest residential receivers to the operation.

Attended measurements were undertaken at three (3) locations surrounding the operation, with each

location representative of adjacent surrounding receivers. The attended noise monitoring locations are

shown in **Figure 1**.

Attended noise surveys were conducted in general accordance with the procedures described in

Australian Standard AS 1055:2018, "Acoustics - Description and Measurement of Environmental Noise".

Measurements were carried out using Svantek Type 1, 971 noise analysers on Tuesday 8 June 2021

and Wednesday 9 June 2021. The acoustic instrumentation used carries current NATA calibration and

 $complies \ with \ AS\ IEC\ 61672.1-2019-Electroacoustics\ -\ Sound\ level\ meters\ -\ Specifications.\ Calibration$ 

of all instrumentation was checked prior to and following measurements. Drift in calibration did not

exceed ±0.5dBA.

Noise measurements were of 15-minutes in duration and where possible, throughout each survey the

operator quantified the contribution of each significant noise source. Two measurements were

conducted at each monitoring location during the night time operational period.

Extraneous noise sources were excluded from the analysis to calculate the LAeq(15min) operation noise

contribution for comparison against the relevant criteria. The results of the attended noise monitoring are

presented in Table 8 along with the applicable noise criteria. Where the operation is inaudible, the

contribution is estimated to be at least 10dBA below the ambient noise level.

acation	Date /	Descripto	r (dBA re 2	20 μPa)	Matagralagu	Description and CDL dDA
_ocation	Time (hrs)	LAmax	LAeq	LA90	- Meteorology	Description and SPL, dBA
						Passing Traffic 40-88
	00/06/2021				WD: N	Insects 30-37
ATT1	09/06/2021	88	65	33	WS: 0.1m/s	Dogs 36-48
	00:18				Rain: Nil	Operation Drive-Thru 30-35
						(30secs)
N	Metric		dB LA	eq		dB LAmax
Operation	n Contribution		<30			35
C	Criteria		35			52
Со	mpliant		✓			✓
						Passing Traffic 40-82
	09/06/2021				WD: N	Insects 30-33
ATT1		82	59	36	WS: 0.1m/s	Service Station Fans 30-35
	01:21				Rain: Nil	Operation Drive-Thru 33-36
						(30 secs)
Metric			dB LA	eq		dB LAmax
Operation Contribution		<30			36	
C	Criteria	35				52
Со	mpliant		✓			✓
				57 36	WD: N	Passing Traffic 33-77
ATTO	08/06/2021	77	57			Insects 29-33
ATT2	23:35	77			WS: 0.1m/s Rain: Nil	Service Station Fans 29-34
						Operation Inaudible
N	Metric		dB LA	eq		dB LAmax
Operation	n Contribution		<30			<35
C	Criteria		35		52	
Со	mpliant		✓			✓
						Passing Traffic 34-79
	09/06/2021				WD: N	Insects 30-36
ATT2		79	56	34	WS: 0.1m/s	Service Station Fans 33-36
	00:38				Rain: Nil	Operation Drive-Thru 34-49
						(10 Secs)
N	Metric		dB LA	eq		dB LAmax
Operation	n Contribution		<30			49
C	Criteria		35			52
Со	mpliant		✓		✓	

1 4:	Date /	Descriptor (dBA re 20 μPa)		Matagrafia	Description and CDL IDA	
Location	Time (hrs)	LAmax	LAeq	LA90	Meteorology	Description and SPL, dBA
						Passing Traffic 30-50
	00/00/0004				WD: N	Insects 31-44
ATT3	08/06/2021	55	42	36	WS: 0.1m/s	Dogs 31-34
	23:57				Rain: Nil	Service Station Vehicles 33-55
						Operation Inaudible
Metric		dB LAeq				dB LAmax
Operation Contribution		<30			<35	
C	Criteria	35				52
Со	mpliant	✓			✓	
					WD: N	Passing Traffic 33-54
A TTO	09/06/2021	<b>5</b> 4	00	0.4		Insects 36-41
ATT3	00:59	54	39	34	WS: 0.1m/s	Service Station 26-30
					Rain: Nil	Operation Inaudible
Metric		dB LAeq				dB LAmax
Operation Contribution		<30			<35	
C	Criteria		35		52	
Compliant		✓		✓		

5.1 Discussion of Attended Monitoring Results

The results of the attended noise monitoring should be considered worst case as they are closer to the

operation than the surrounding noise sensitive receiver and do not take into account any intervening

boundary fences.

5.1.1 Location ATT1

The results of monitoring conducted at location ATT1 demonstrates that the noise emissions associated

with the operation are briefly audible at this location. The audible operation sources were the brief

instances where vehicles accessed the operation drive-thru. The dominant audible noise sources at this

monitoring location were passing traffic and intermittent insect noise. The results of the attended

monitoring show the operation complied with the applicable noise criteria during the night period.

5.1.2 Location ATT2

The results at monitoring location ATT2 demonstrates that the noise emissions associated with the

operation were generally inaudible at this location with only one brief 10 second period where the

operation was audible. The audible operation sources were again the brief instance of cars in the drive-

thru. The dominant noise sources included passing traffic, insects and the service station fans. The

results of the attended monitoring show the operation complied with the applicable noise criteria during

the night period.

5.1.3 Location ATT3

The results at monitoring location ATT3 demonstrates that the noise emissions associated with the

operation are inaudible at this location with traffic, insects and cars in the service station audible. The

results of the attended monitoring show the operation complied with the applicable noise criteria during

the night period.

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#### 6 Conclusion

Muller Acoustic Consulting Pty Ltd (MAC) has completed a Noise Assessment to quantify emissions from the proposed 24hour operation of the existing McDonald's Operation (the 'operation') located at 1-21 Cranebrook Road, Cranebrook, NSW.

To quantify the noise emissions from the operation, attended noise monitoring was undertaken during the 12 month, 24-hour operation trial period at the nearest residential receivers to the operation. The results of the attended noise monitoring demonstrate that emissions from the operation satisfy the relevant PNTLs and Maximum Noise Assessment Trigger Levels at all assessed receivers for the during the night period.

Based on the findings of the Noise Assessment, it is recommended Council approve the permanent extension of trading hours taking into consideration the results of the attended noise monitoring at the operation.

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# Appendix A – Glossary of Terms

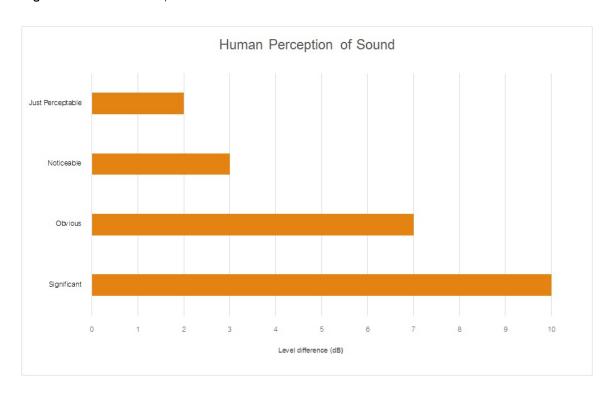
A number of technical terms have been used in this report and are explained in Table A1.

Table A1 Glossary of Terms					
Term	Description				
1/3 Octave	Single octave bands divided into three parts				
Octave	A division of the frequency range into bands, the upper frequency limit of each band being				
	twice the lower frequency limit.				
ABL	Assessment Background Level (ABL) is defined in the NPI as a single figure background level				
	for each assessment period (day, evening and night). It is the tenth percentile of the measured				
	LA90 statistical noise levels.				
Ambient Noise	The noise associated with a given environment. Typically a composite of sounds from many				
	sources located both near and far where no particular sound is dominant.				
Extraneous	Noise resulting from activities that are not typical of the area. Atypical activities include sources				
Noise	such as construction and holiday period traffic.				
A Weighting	A standard weighting of the audible frequencies designed to reflect the response of the human				
	ear to noise.				
dBA	Noise is measured in units called decibels (dB). There are several scales for describing noise,				
	the most common being the 'A-weighted' scale. This attempts to closely approximate the				
	frequency response of the human ear.				
dB(Z), dB(L)	Decibels Linear or decibels Z-weighted.				
Hertz (Hz)	The measure of frequency of sound wave oscillations per second - 1 oscillation per second				
	equals 1 hertz.				
LA10	A noise level which is exceeded 10 $\%$ of the time. It is approximately equivalent to the average				
	of maximum noise levels.				
LA90	Commonly referred to as the background noise, this is the level exceeded 90 % of the time.				
LAeq	The summation of noise over a selected period of time. It is the energy average noise from a				
	source, and is the equivalent continuous sound pressure level over a given period.				
LAmax	The maximum root mean squared (rms) sound pressure level received at the microphone				
	during a measuring interval.				
RBL	The Rating Background Level (RBL) is an overall single figure background level representing				
	each assessment period over the whole monitoring period. The RBL is used to determine the				
	intrusiveness criteria for noise assessment purposes and is the median of the ABL's.				
Sound power	This is a measure of the total power radiated by a source. The sound power of a source is a				
level (LW)	fundamental location of the source and is independent of the surrounding environment. Or a				
	measure of the energy emitted from a source as sound and is given by:				
	= 10.log10 (W/Wo)				
	Where: W is the sound power in watts and Wo is the sound reference power at 10-12 watts.				

Table A2 provides a list of common noise sources and their typical sound level.

Table A2 Common Noise Sources and Their Typical Sound Pressure Levels (SPL), dBA					
Source	Typical Sound Level				
Threshold of pain	140				
Jet engine	130				
Hydraulic hammer	120				
Chainsaw	110				
Industrial workshop	100				
Lawn-mower (operator position)	90				
Heavy traffic (footpath)	80				
Elevated speech	70				
Typical conversation	60				
Ambient suburban environment	40				
Ambient rural environment	30				
Bedroom (night with windows closed)	20				
Threshold of hearing	0				

Figure A1 – Human Perception of Sound

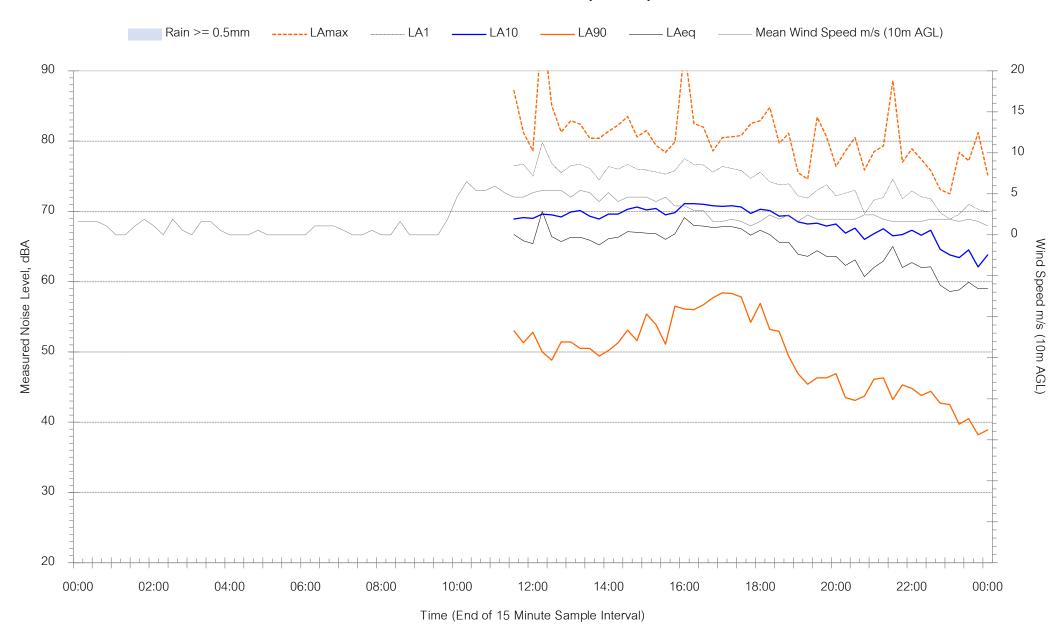


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Appendix B – Noise Monitoring Charts

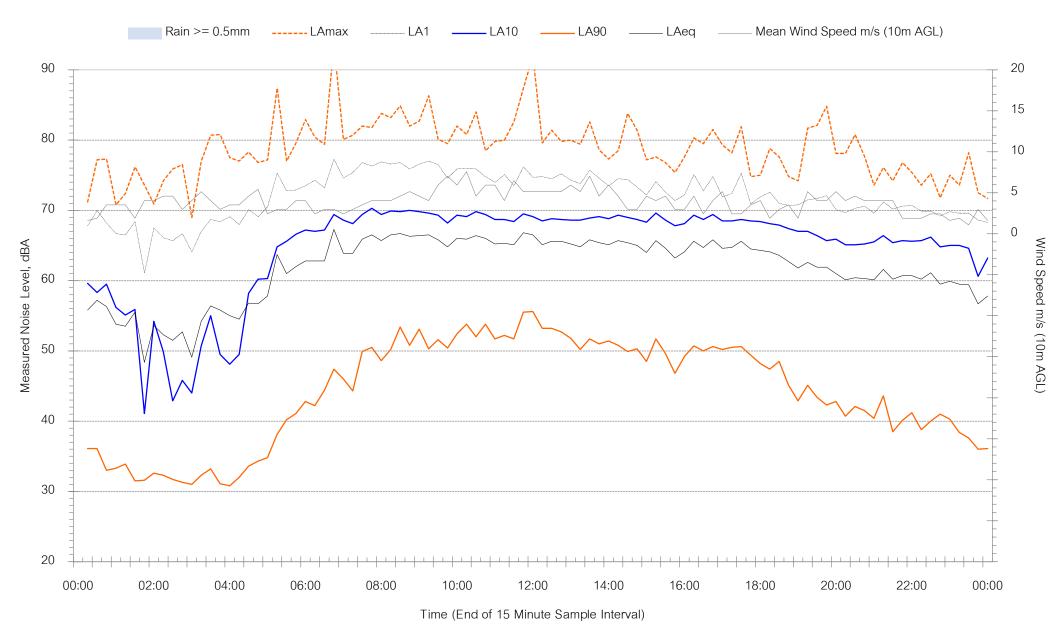


# Cranebrook McDonalds - Friday 28 May 2021



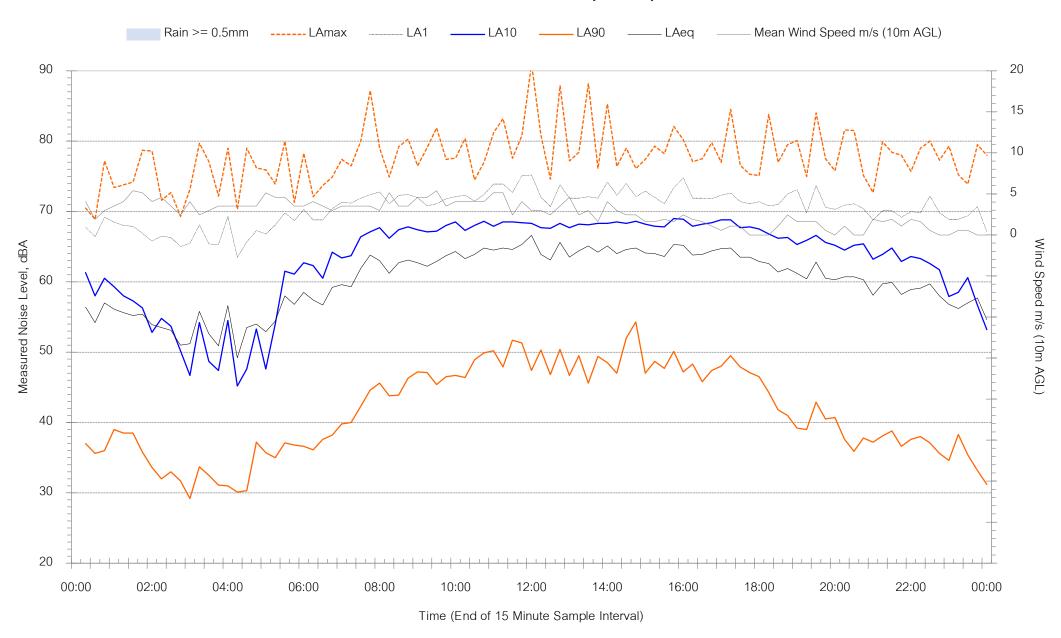


# Cranebrook McDonalds - Saturday 29 May 2021



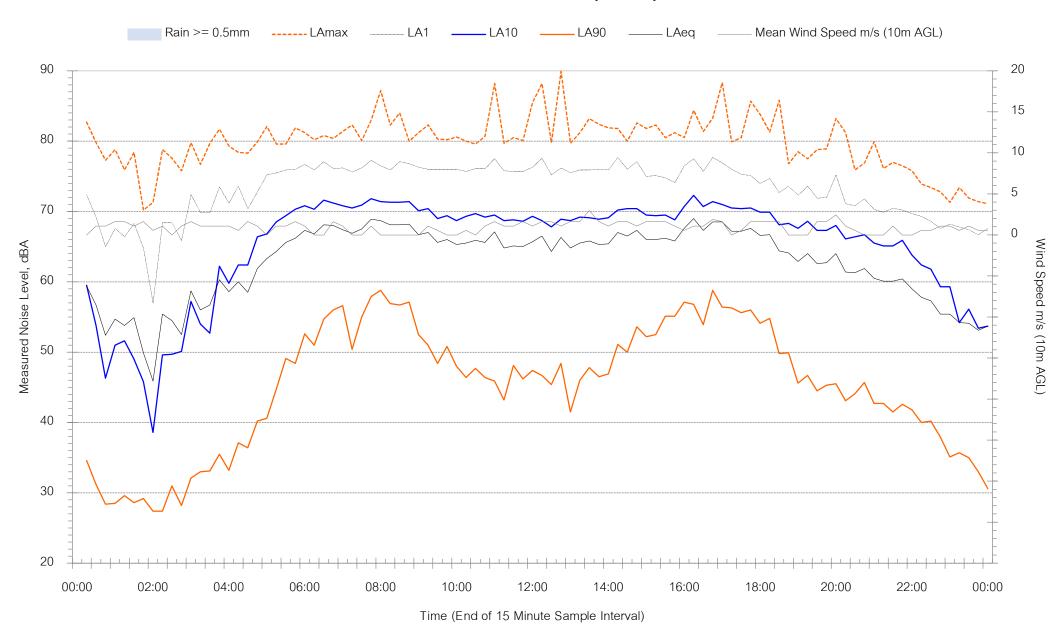


# Cranebrook McDonalds - Sunday 30 May 2021



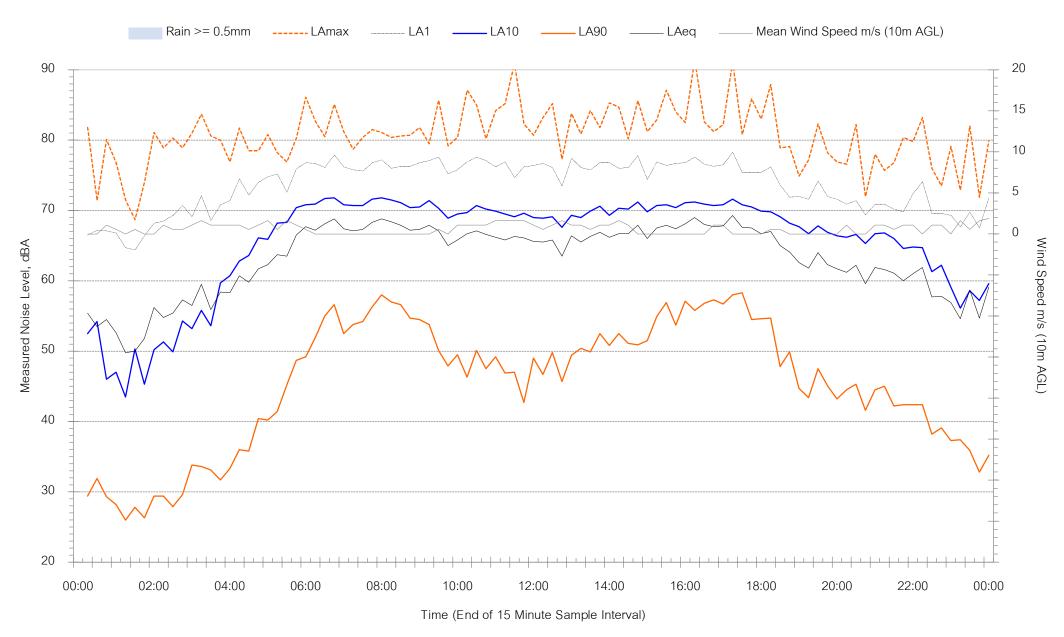


# Cranebrook McDonalds - Monday 31 May 2021



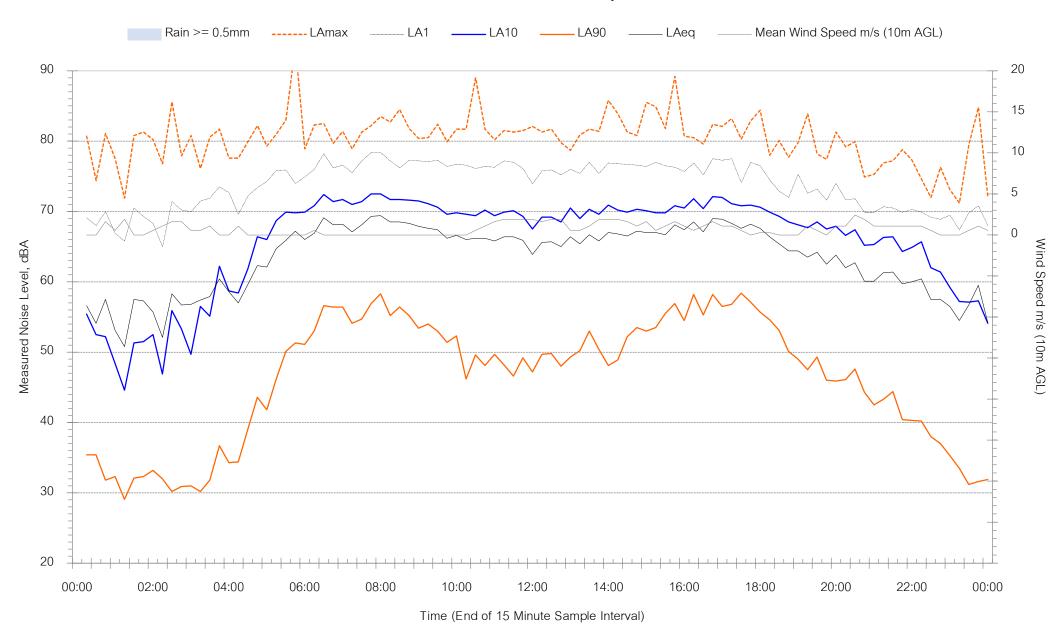


# Cranebrook McDonalds - Tuesday 1 June 2021



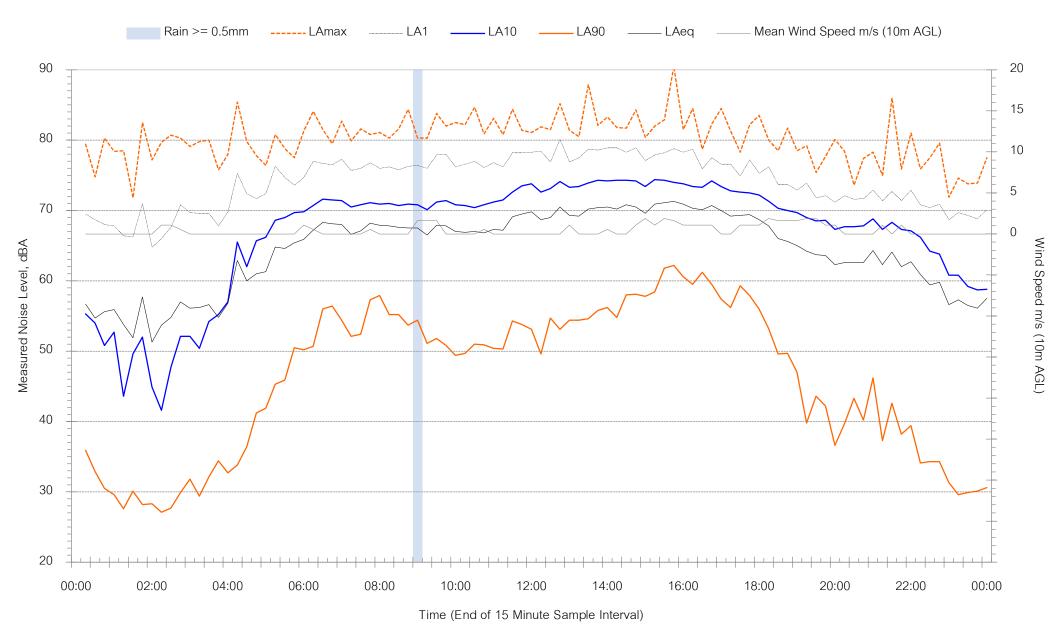


# Cranebrook McDonalds - Wednesday 2 June 2021



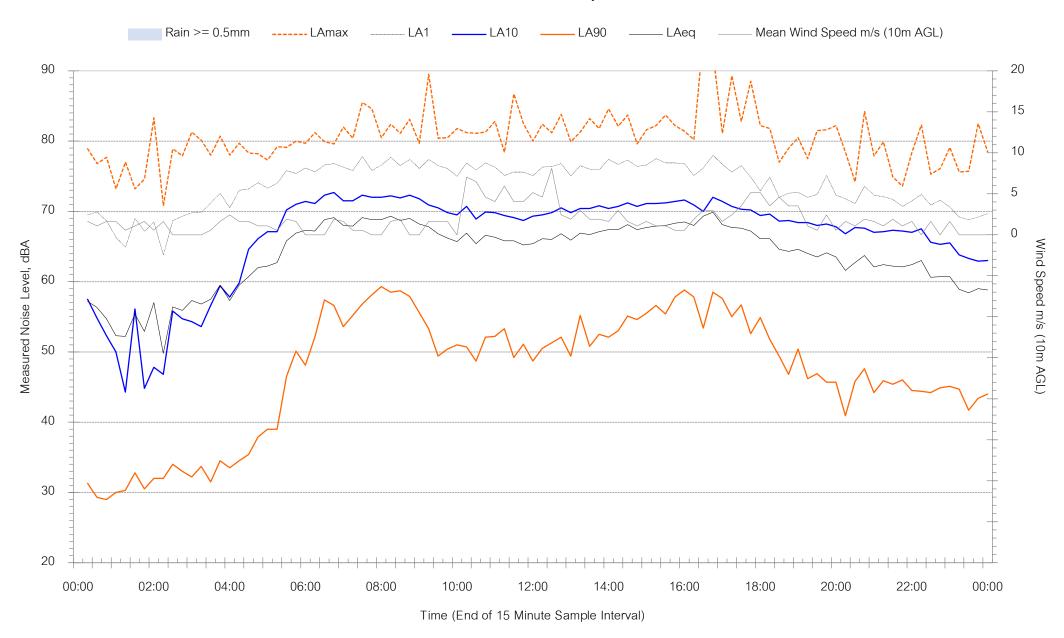


# Cranebrook McDonalds - Thursday 3 June 2021



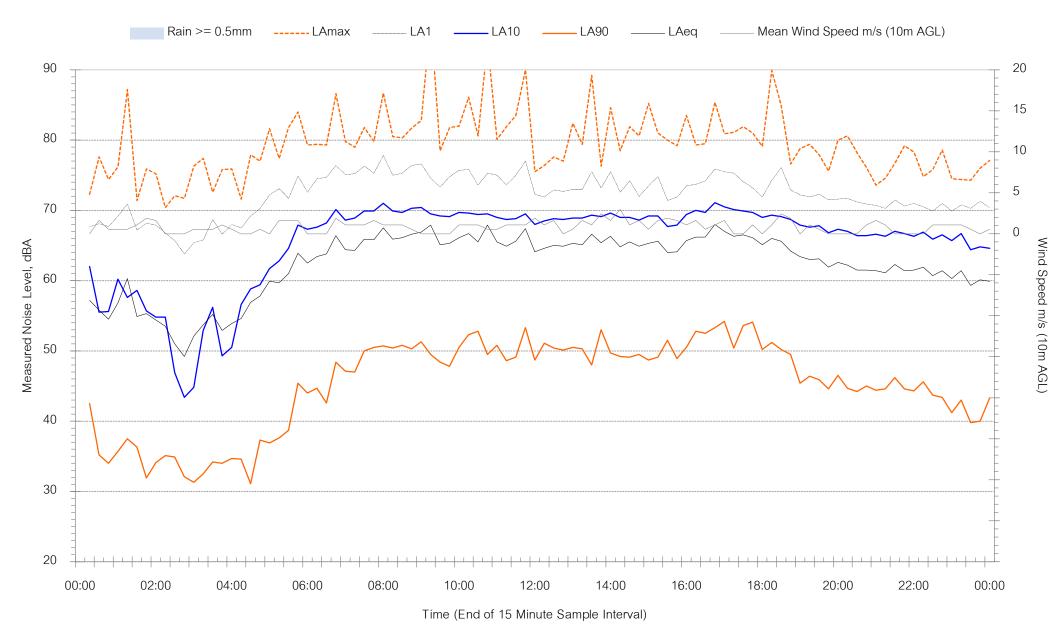


# Cranebrook McDonalds - Friday 4 June 2021



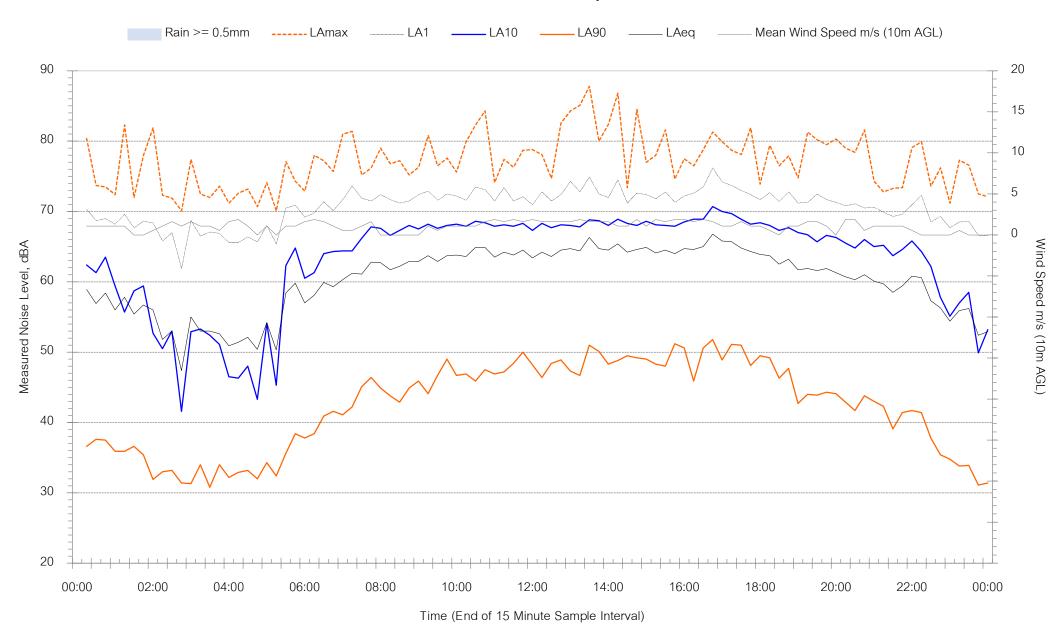


# Cranebrook McDonalds - Saturday 5 June 2021



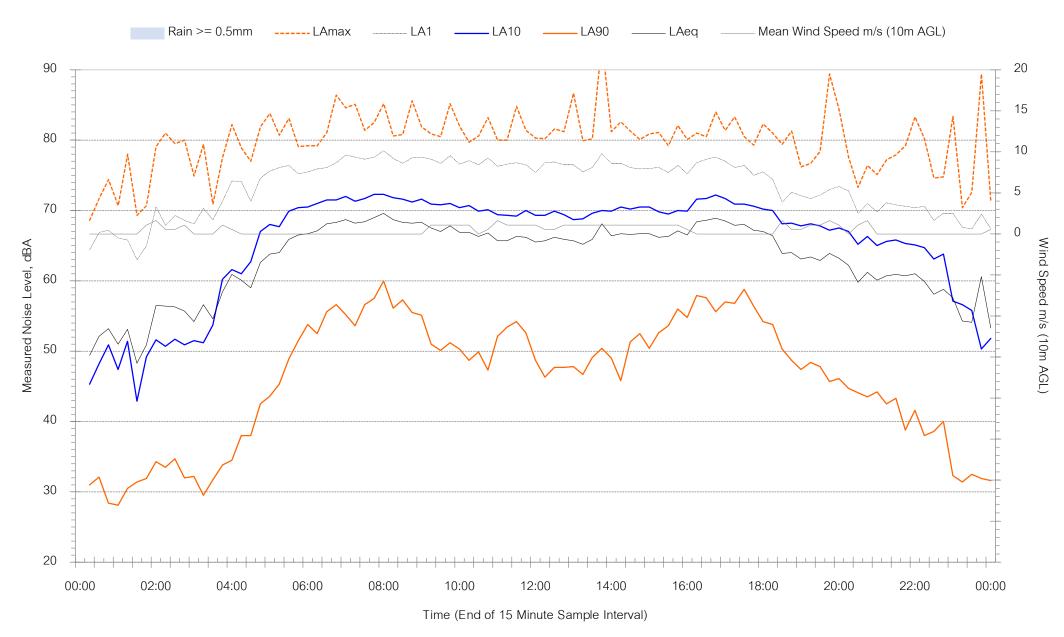


# Cranebrook McDonalds - Sunday 6 June 2021



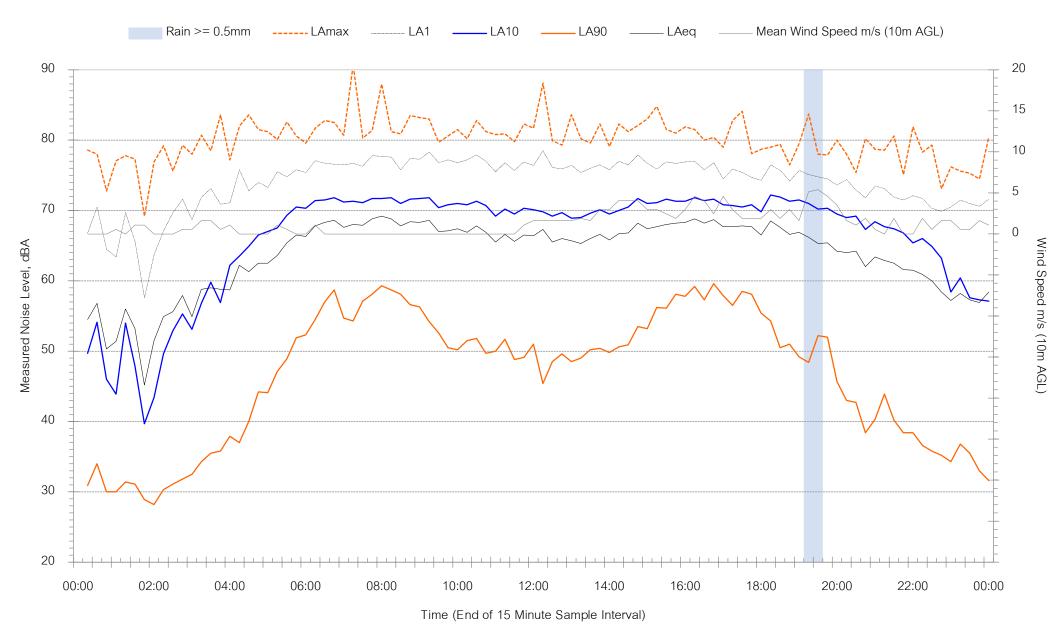


# Cranebrook McDonalds - Monday 7 June 2021



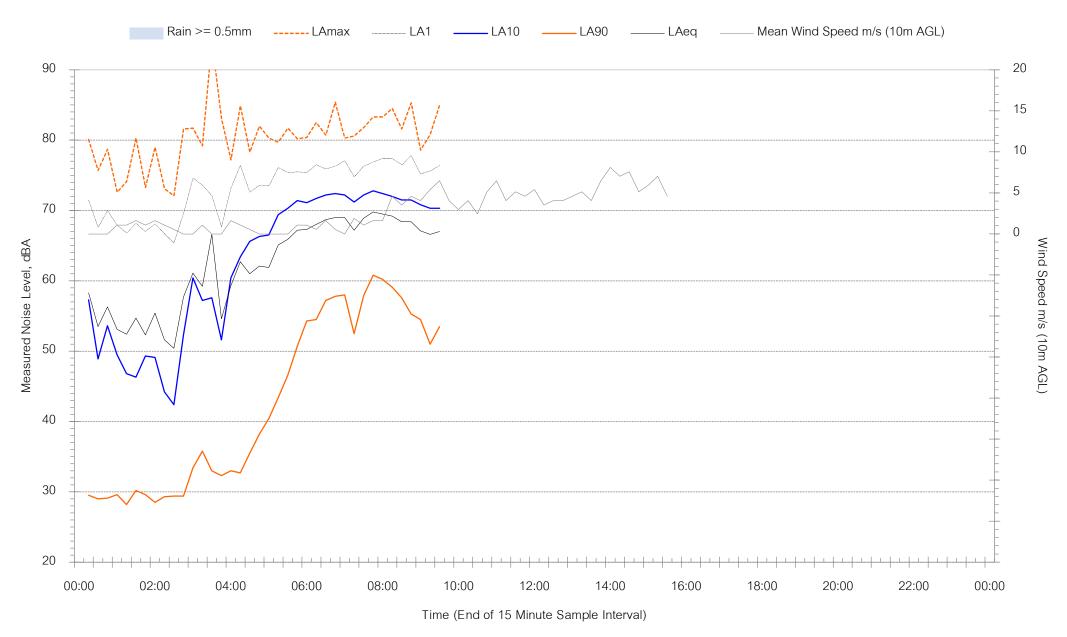


# Cranebrook McDonalds - Tuesday 8 June 2021





# Cranebrook McDonalds - Wednesday 9 June 2021



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