

Hunter Power Project – 3200-0663

Attended Noise Monitoring Results – 29th August 2023

Prepared by Cristina Lang - UGL Senior Environmental Advisor

Date: 31st August 2023

The Hunter Power Project commenced construction activities 24 hours per day, 7 days per week, on the 28th of August 2023.

In compliance with the condition L5.4, of EPL 21627, HPP conducted two rounds of attended noise monitoring in the five locations specified in the EPL 21627. The first round of noise monitoring was undertaken in the evening construction hours and the second round, in the night construction hours. A Casella Precision Integrating Octave band Sound Level meter CEL-62OB1/K1 was utilised for the measurements of noise levels. The equipment was last calibrated on 15 of August 2022 and field calibration was performed before and after each monitoring event. The first round of noise monitoring was initiated at 8:06pm and concluded at 10:08pm (evening – outside of standard construction hours) and the second round of noise monitoring was initiated at 10:08pm and concluded at 12:00am (night - outside of standard construction hours).

During the evening and night hours monitoring, construction noise was inaudible at all locations therefore the exceedances detected in this report are resulting from other noise sources.

The noise monitoring record sheets and the Appendix A *raw data*, documents embedded with this memorandum, display a more detailed description of the noise monitoring events performed on 29th August 2023.

The results from noise monitoring are presented in the table A below:

NCA	Address	Leq (15 min) dB(A)	LAMax dB(A)	Leq (15 min) dB(A)	LAMax dB(A)
		Evening (outside standard construction hours)	Evening (outside standard construction hours)	Night (outside standard construction hours)	Night (outside standard construction hours)
		6:00pm – 10:00pm	6:00pm – 10:00pm	10:00pm- 7:00am	10:00pm – 7:00am
1	103 Bishops Bridge Rd, Sawyers Gully	48.8	82	44.2	60.5
2	6 Dawes Ave, Loxford	49.3	70.5	47.2	74.3
3	20 Bowditch Ave, Loxford	40.6	61.8	35.9	58.6
4	464 Cessnock Rd, Gillieston Heights	66.7	89.6	65	84.6
5	15 Sawyers Gully Rd, Sawyers Gully	55	79.1	53.1	76.6

Table A. Results from noise monitoring activities on 29th August 2023

NOISE MONITORING RECORD

PROJECT DETAILS																					
Project Name		Hunter Power Project																			
Monitoring Location		NCA 01			103 Bishops Bridge Rd, Sawyers Gully																
Date		29/08/2023			Time		08:06pm														
Sampler		C Lang, A van der Kroft																			
Construction Activity		Main construction – Evening hours																			
Distance from Noise Source		1,240 m																			
Weather Conditions		Clear, no wind, 12°C																			
Noise Source/s		Hunter Expressway, insects, frogs																			
SOUND METER DETAILS																					
Serial Number		5015288		Make		Casella		Model		CEL-620B											
Calibration Details		Meter calibrated by Supplier on the 15/08/2022																			
Test Standards		AS 1055.1:1997 and AS 2659.2:1983																			
Noise Management Levels		Std Construction Hrs 7:00 am – 6:00 pm Weekdays		50		Period 1 Evening 6:00pm-10:00pm		48		Period 2 Night 10:00pm-7:00am		41		Sleep Disturbance (LAeq)		41		Sleep Disturbance (LAMax)		52	
RESULTS																					
Qualitative Assessment																					
Construction Noise Inaudible				<input checked="" type="checkbox"/>		Construction noise intermittently audible				<input type="checkbox"/>											
Construction noise typically audible				<input type="checkbox"/>		Construction noise clearly audible				<input type="checkbox"/>											
Construction noise is dominant noise source				<input type="checkbox"/>		Impulsive construction noise audible (e.g. rock-breaking)				<input type="checkbox"/>											
High noise generating activities audible (e.g. chainsaws)				<input type="checkbox"/>		Tonal construction noise audible				<input type="checkbox"/>											
Quantitative Assessment																					
Start Time		08:06pm				Finish time		08:21pm													
LAmax				82				dBA													
LAmin				40.3				dBA													
LAeq 15 min				48.8				dBA													
Exceedance of NML				0.8				dBA													
Comments																					
<p>During monitoring, construction noise was inaudible. Other noise sources included insects, frogs and the Hunter Expressway. The Hunter Expressway was located parallel to this monitoring location hence noises from the highway were quite audible.</p>																					

Appendix A NOISE METER RAW DATA - EVENING HOURS

		NCA 01 - 103 Bishops Bridge Rd, Sawyers Gully
<CEL-620B Data>		
Version	018-03	
<Run>		
Location		
Response	FreeField	
Start		29/08/2023 21:06
Duration		0:15:00
Paused Duration		0:00:00
Serial Number		5015288
Run		32
Overload	No	
Battery Low	No	
<Broadband>		
LZSmax		83.2
LZSmax Time		29/08/2023 21:19
LZFmax		87.1
LZFmax Time		29/08/2023 21:19
LZImax		91.7
LZImax Time		29/08/2023 21:19
LCSmax		74.3
LCSmax Time		29/08/2023 21:19
LCFmax		82.1
LCFmax Time		29/08/2023 21:19
LClmax		87
LClmax Time		29/08/2023 21:19
LASmax		73.6
LASmax Time		29/08/2023 21:19
LAFmax		82
LAFmax Time		29/08/2023 21:19
LAlmax		87.1
LAlmax Time		29/08/2023 21:19
LZSmin		55.7
LZSmin Time		29/08/2023 21:07
LZFmin		53.6
LZFmin Time		29/08/2023 21:07
LZImin		57.4
LZImin Time		29/08/2023 21:07
LCSmin		52.2
LCSmin Time		29/08/2023 21:06
LCFmin		51.1
LCFmin Time		29/08/2023 21:07
LClmin		53
LClmin Time		29/08/2023 21:07
LASmin		41.2
LASmin Time		29/08/2023 21:20
LAFmin		40.3
LAFmin Time		29/08/2023 21:20
LAlmin		40.8

LAlmin Time	29/08/2023 21:20
LZeq	61.8
LCeq	57.9
LReq	48.8
LAlaq	60.1
Lavg Threshold	0
Lavg Q=4	47.5
Lavg Q=5	47
LZpeak	111.6
LZpeak Time	29/08/2023 21:19
LCpeak	112
LCpeak Time	29/08/2023 21:19
LApqak	112.2
LApqak Time	29/08/2023 21:19
LAE	78.3
LReq(T=80)	44.4
LAFTm3	57.9
LAFTm5	59.9
LAITm3	65.2
LAITm5	65.5
<Octave LZeq>	
16Hz	54.6
31.5Hz	53.9
64Hz	55.1
125Hz	49.1
250Hz	44.9
500Hz	43.5
1KHz	44.4
2KHz	41.1
4KHz	39.8
8KHz	32.2
16KHz	24.7
<Octave LZFmax>	
16Hz	80.3
31.5Hz	77.3
64Hz	73.3
125Hz	63.7
250Hz	62
500Hz	66.1
1KHz	72.9
2KHz	76.7
4KHz	77.3
8KHz	69.3
16KHz	58
<Octave LZSmax>	
16Hz	75.9
31.5Hz	70.9
64Hz	71.1
125Hz	60.4
250Hz	55.5
500Hz	59
1KHz	64.6

2KHz	68.3
4KHz	68.6
8KHz	60.8
16KHz	51.5
<Calibration>	
Before Cal Date	29/08/2023 21:05
Cal Ref.Level	94
Cal Position	1.7
After Cal Date	29/08/2023 21:26
Cal Change	0.1

NOISE MONITORING RECORD

PROJECT DETAILS										
Project Name		Hunter Power Project								
Monitoring Location		NCA 02			10 Dawes Avenue, Loxford					
Date		29/08/2023			Time		09:23pm			
Sampler		C Lang, A van der Kroft								
Construction Activity		Main construction – Evening hours								
Distance from Noise Source		1,610 m								
Weather Conditions		Clear, no wind, 12°C								
Noise Source/s		Insects, frogs, traffic from Hunter Expressway								
SOUND METER DETAILS										
Serial Number		5015288		Make		Casella		Model		CEL-620B
Calibration Details		Meter calibrated by Supplier on the 15/08/2022								
Test Standards		AS 1055.1:1997 and AS 2659.2:1983								
Noise Management Levels	Std Construction Hrs 7:00 am – 6:00 pm Weekdays	45	Period 1 Evening 6:00pm-10:00pm	45	Period 2 Night 10:00pm-7:00am	43	Sleep Disturbance (LAeq)	43	Sleep Disturbance (LAMax)	53
RESULTS										
Qualitative Assessment										
Construction Noise Inaudible				<input checked="" type="checkbox"/>		Construction noise intermittently audible				<input type="checkbox"/>
Construction noise typically audible				<input type="checkbox"/>		Construction noise clearly audible				<input type="checkbox"/>
Construction noise is dominant noise source				<input type="checkbox"/>		Impulsive construction noise audible (e.g. rock-breaking)				<input type="checkbox"/>
High noise generating activities audible (e.g. chainsaws)				<input type="checkbox"/>		Tonal construction noise audible				<input type="checkbox"/>
Quantitative Assessment										
Start Time		09:23pm			Finish time		09:38pm			
LAmax			70.5			dBA				
LAmin			40.7			dBA				
LAeq 15 min			49.3			dBA				
Exceedance of NML			4.3			dBA				
Comments										
<p>During monitoring, construction noise was inaudible. Other noise sources insects, frogs and the Hunter Expressway.</p> <p>Noise from the Hunter Expressway was exceptionally loud at this location.</p>										

Appendix A - NOISE METER: RAW DATA - EVENING HOURS

<CEL-620B Data>	NCA 02 - 10 Dawes Avenue, Loxford	
Version		
<Run>		
Location		
Response	FreeField	
Start		29/08/2023 22:23
Duration		0:15:00
Paused Duration		0:00:00
Serial Number		5015288
Run		36
Overload	No	
Battery Low	No	
<Broadband>		
LZSmax		74.4
LZSmax Time		29/08/2023 22:34
LZFmax		81.8
LZFmax Time		29/08/2023 22:34
LZImax		86
LZImax Time		29/08/2023 22:34
LCSmax		70.1
LCSmax Time		29/08/2023 22:34
LCFmax		78.4
LCFmax Time		29/08/2023 22:34
LCImax		83.2
LCImax Time		29/08/2023 22:34
LASmax		61.8
LASmax Time		29/08/2023 22:34
LAFmax		70.5
LAFmax Time		29/08/2023 22:34
LAlmax		75.5
LAlmax Time		29/08/2023 22:34
LZSmin		54.8
LZSmin Time		29/08/2023 22:37
LZFmin		51.9
LZFmin Time		29/08/2023 22:36
LZImin		56
LZImin Time		29/08/2023 22:33
LCSmin		50.8
LCSmin Time		29/08/2023 22:23
LCFmin		49
LCFmin Time		29/08/2023 22:37
LCImin		51.3
LCImin Time		29/08/2023 22:36
LASmin		41.2
LASmin Time		29/08/2023 22:36
LAFmin		39.8
LAFmin Time		29/08/2023 22:37
LAlmin		40.7
LAlmin Time		29/08/2023 22:36
LZeq		59

LCeq	55.5
LAeq	49.3
LAlaq	52.5
Lavg Threshold	0
Lavg Q=4	49.1
Lavg Q=5	49
LZpeak	96.4
LZpeak Time	29/08/2023 22:34
LCpeak	98.2
LCpeak Time	29/08/2023 22:34
LApeak	94.7
LApeak Time	29/08/2023 22:34
LAE	78.9
LAeq(T=80)	32
LAFTm3	52.8
LAFTm5	53.7
LAITm3	56
LAITm5	56.6
<Octave LZeq>	
16Hz	54
31.5Hz	51.7
64Hz	49.6
125Hz	47.3
250Hz	40.9
500Hz	45.8
1KHz	47.3
2KHz	38.3
4KHz	30.6
8KHz	19.3
16KHz	15.8
<Octave LZFmax>	
16Hz	75.2
31.5Hz	77
64Hz	75
125Hz	62
250Hz	59.2
500Hz	59
1KHz	62.4
2KHz	68
4KHz	55.8
8KHz	40.7
16KHz	33
<Octave LZSmax>	
16Hz	67.7
31.5Hz	68.9
64Hz	66.8
125Hz	55.9
250Hz	51.7
500Hz	56.3
1KHz	56.6
2KHz	59.4
4KHz	47

8KHz	36.6
16KHz	28.6
<Calibration>	
Before Cal Date	29/08/2023 22:21
Cal Ref.Level	94
Cal Position	2
After Cal Date	29/08/2023 22:52
Cal Change	-0.6

NOISE MONITORING RECORD

PROJECT DETAILS											
Project Name		Hunter Power Project									
Monitoring Location		NCA 03			20 Bowditch Avenue, Loxford						
Date		29/08/2023		Time		08:52pm					
Sampler		C Lang, A van der Kroft									
Construction Activity		Main construction – Evening hours									
Distance from Noise Source		1,150 m									
Weather Conditions		Clear, no wind, 12°C									
Noise Source/s		Insects, frogs, Lapwing plover, Ambulance, dog bark, Hunter Expressway									
SOUND METER DETAILS											
Serial Number		5015288		Make		Casella		Model		CEL-620B	
Calibration Details		Meter calibrated by Supplier on the 15/08/2022									
Test Standards		AS 1055.1:1997 and AS 2659.2:1983									
Noise Management Levels		Std Construction Hrs 7:00 am – 6:00 pm Weekdays	43	Period 1 Evening 6:00pm-10:00pm	43	Period 2 Night 10:00pm-7:00am	38	Sleep Disturbance (LAeq)	42	Sleep Disturbance (LAMax)	52
RESULTS											
Qualitative Assessment											
Construction Noise Inaudible				<input checked="" type="checkbox"/>		Construction noise intermittently audible				<input type="checkbox"/>	
Construction noise typically audible				<input type="checkbox"/>		Construction noise clearly audible				<input type="checkbox"/>	
Construction noise is dominant noise source				<input type="checkbox"/>		Impulsive construction noise audible (e.g. rock-breaking)				<input type="checkbox"/>	
High noise generating activities audible (e.g. chainsaws)				<input type="checkbox"/>		Tonal construction noise audible				<input type="checkbox"/>	
Quantitative Assessment											
Start Time		08:52pm			Finish time		09:07pm				
LAmax				61.8			dBA				
LAmin				31.9			dBA				
LAeq 15 min				40.6			dBA				
Exceedance of NML				Nil			dBA				
Comments											
<p>During monitoring, construction noise was inaudible. Other noise sources included insects, frogs and the Hunter Expressway. During the 15-minute interval lapwing plovers were audible, producing mild noises.</p> <p>Dogs barking was present during part of the noise monitoring.</p> <p>An ambulance siren could be heard faintly.</p>											

Appendix A - NOISE METER : RAW DATA - EVENING HOURS

<CEL-620B Data>	NCA 03 - 20 Bowditch Avenue, Loxford	
Version		
<Run>		
Location		
Response	FreeField	
Start		29/08/2023 21:52
Duration		0:15:00
Paused Duration		0:00:00
Serial Number		5015288
Run		34
Overload	No	
Battery Low	No	
<Broadband>		
LZSmax		63.8
LZSmax Time		29/08/2023 22:06
LZFmax		68.3
LZFmax Time		29/08/2023 22:06
LZImax		70.6
LZImax Time		29/08/2023 22:06
LCSmax		58
LCSmax Time		29/08/2023 22:00
LCFmax		60.5
LCFmax Time		29/08/2023 21:53
LClmax		64
LClmax Time		29/08/2023 21:53
LASmax		59.2
LASmax Time		29/08/2023 22:00
LAFmax		61.8
LAFmax Time		29/08/2023 22:00
LAlmax		63.6
LAlmax Time		29/08/2023 22:00
LZSmin		50
LZSmin Time		29/08/2023 21:57
LZFmin		47.6
LZFmin Time		29/08/2023 21:57
LZLmin		50.3
LZLmin Time		29/08/2023 21:58
LCSmin		46
LCSmin Time		29/08/2023 22:02
LCFmin		44.3
LCFmin Time		29/08/2023 22:06
LClmin		46.4
LClmin Time		29/08/2023 21:58
LASmin		32.5
LASmin Time		29/08/2023 22:07
LAFmin		31.9
LAFmin Time		29/08/2023 22:06
LAlmin		32.2
LAlmin Time		29/08/2023 22:07
LZeq		53.2

LCeq	49
LAeq	40.6
LAleq	46
Lavg Threshold	0
Lavg Q=4	39.2
Lavg Q=5	38.6
LZpeak	76.6
LZpeak Time	29/08/2023 21:53
LCpeak	74.4
LCpeak Time	29/08/2023 22:00
LApeak	75.8
LApeak Time	29/08/2023 22:00
LAE	70.1
LAeq(T=80)	0
LAFTm3	46.2
LAFTm5	47.3
LAITm3	49.4
LAITm5	50.4
<Octave LZeq>	
16Hz	48.1
31.5Hz	46
64Hz	44.7
125Hz	40.3
250Hz	36.8
500Hz	34.4
1KHz	33.2
2KHz	33.4
4KHz	34.9
8KHz	22.8
16KHz	15
<Octave LZFmax>	
16Hz	60.9
31.5Hz	60.3
64Hz	55.8
125Hz	57
250Hz	54.9
500Hz	51.3
1KHz	59.8
2KHz	55.4
4KHz	58.9
8KHz	46.5
16KHz	31.2
<Octave LZSmax>	
16Hz	56.7
31.5Hz	55.9
64Hz	51.2
125Hz	50.1
250Hz	47.5
500Hz	46.3
1KHz	52.4
2KHz	53.2
4KHz	56.2

8KHz	43.7
16KHz	26.9
<Calibration>	
Before Cal Date	29/08/2023 21:52
Cal Ref.Level	94
Cal Position	1.5
After Cal Date	29/08/2023 22:21
Cal Change	0.4

PROJECT DETAILS																					
Project Name		Hunter Power Project																			
Monitoring Location		NCA 04			464 Cessnock Rd, Gillieston Heights																
Date		29/08/2023			Time		09:53pm														
Sampler		C Lang, A van der Kroft																			
Construction Activity		Main construction – Evening hours																			
Distance from Noise Source		1,240 m																			
Weather Conditions		Clear, no wind, 12 °C																			
Noise Source/s		Insects, frogs, traffic on the main road																			
SOUND METER DETAILS																					
Serial Number		5015288		Make		Casella		Model		CEL-620B											
Calibration Details		Meter calibrated by Supplier on the 15/08/2022																			
Test Standards		AS 1055.1:1997 and AS 2659.2:1983																			
Noise Management Levels		Std Construction Hrs 7:00 am – 6:00 pm Weekdays		40		Period 1 Evening 6:00pm-10:00pm		35		Period 2 Night 10:00pm-7:00am		35		Sleep Disturbance (LAeq)		40		Sleep Disturbance (LAMax)		52	
RESULTS																					
Qualitative Assessment																					
Construction Noise Inaudible											<input checked="" type="checkbox"/>		Construction noise intermittently audible								<input type="checkbox"/>
Construction noise typically audible											<input type="checkbox"/>		Construction noise clearly audible								<input type="checkbox"/>
Construction noise is dominant noise source											<input type="checkbox"/>		Impulsive construction noise audible (e.g. rock-breaking)								<input type="checkbox"/>
High noise generating activities audible (e.g. chainsaws)											<input type="checkbox"/>		Tonal construction noise audible								<input type="checkbox"/>
Quantitative Assessment																					
Start Time		09:53pm				Finish time		10:08pm													
LAmax				89.6				dBA													
LAmin				39.1				dBA													
LAeq 15 min				66.7				dBA													
Exceedance of NML				31.7				dBA													
Comments																					
<p>During monitoring, construction noise was inaudible. Other noise sources insects, frogs and vehicles on the main road.</p>																					

Appendix A - NOISE METER : RAW DATA - EVENING HOURS

<CEL-620B Data>	NCA 04 - 464 Cessnock Rd, Gillieston Heights	
Version		
<Run>		
Location		
Response	FreeField	
Start		29/08/2023 22:53
Duration		0:15:00
Paused Duration		0:00:00
Serial Number		5015288
Run		37
Overload	No	
Battery Low	No	
<Broadband>		
LZSmax		87.9
LZSmax Time		29/08/2023 23:04
LZFmax		91.8
LZFmax Time		29/08/2023 23:04
LZImax		92.9
LZImax Time		29/08/2023 23:04
LCSmax		86.9
LCSmax Time		29/08/2023 23:04
LCFmax		91
LCFmax Time		29/08/2023 23:04
LClmax		92.5
LClmax Time		29/08/2023 23:04
LASmax		85.4
LASmax Time		29/08/2023 23:04
LAFmax		89.6
LAFmax Time		29/08/2023 23:04
LAlmax		91.1
LAlmax Time		29/08/2023 23:04
LZSmin		54.1
LZSmin Time		29/08/2023 22:57
LZFmin		52.5
LZFmin Time		29/08/2023 22:57
LZImin		54.7
LZImin Time		29/08/2023 22:57
LCSmin		51.9
LCSmin Time		29/08/2023 22:57
LCFmin		50.5
LCFmin Time		29/08/2023 22:54
LClmin		52.6
LClmin Time		29/08/2023 22:53
LASmin		39.7
LASmin Time		29/08/2023 22:54
LAFmin		39.1
LAFmin Time		29/08/2023 22:54
LAlmin		39.4
LAlmin Time		29/08/2023 22:54
LZeq		70

LCeq	69.1
LAEq	66.7
LAleq	69.7
Lavg Threshold	0
Lavg Q=4	65
Lavg Q=5	63.8
LZpeak	104.4
LZpeak Time	29/08/2023 23:04
LCpeak	103.7
LCpeak Time	29/08/2023 23:04
LApeak	103.3
LApeak Time	29/08/2023 23:04
LAE	96.3
LAEq(T=80)	60.1
LAFTm3	71.6
LAFTm5	73.2
LAITm3	73.4
LAITm5	74.8
<Octave LZeq>	
16Hz	51
31.5Hz	55.2
64Hz	62.8
125Hz	58.5
250Hz	57.9
500Hz	60.5
1KHz	64.7
2KHz	58.6
4KHz	49.4
8KHz	39.2
16KHz	27.3
<Octave LZfmax>	
16Hz	71.7
31.5Hz	77.7
64Hz	84.9
125Hz	85.1
250Hz	80.2
500Hz	84.5
1KHz	88.7
2KHz	77.6
4KHz	77.7
8KHz	63.6
16KHz	51.4
<Octave LZsmax>	
16Hz	65.7
31.5Hz	73.6
64Hz	80.9
125Hz	80.7
250Hz	76.3
500Hz	80.5
1KHz	84.3
2KHz	73.2
4KHz	72.3

8KHz	58.3
16KHz	47.2
<Calibration>	
Before Cal Date	29/08/2023 22:52
Cal Ref.Level	94
Cal Position	1.3
After Cal Date	29/08/2023 23:38
Cal Change	-0.5

PROJECT DETAILS											
Project Name		Hunter Power Project									
Monitoring Location		NCA 05			59 Sawyers Gully Rd, Sawyers Gully						
Date		29/08/2023			Time		08:26pm				
Sampler		C Lang, A van der Kroft									
Construction Activity		Main construction – Evening hours									
Distance from Noise Source		3,210 m									
Weather Conditions		Clear, no wind, 12°C									
Noise Source/s		Insects, Hunter Expressway, vehicles on main road									
SOUND METER DETAILS											
Serial Number		5015288		Make		Casella		Model		CEL-620B	
Calibration Details		Meter calibrated by Supplier on the 15/08/2022									
Test Standards		AS 1055.1:1997 and AS 2659.2:1983									
Noise Management Levels		Std Construction Hrs 7:00 am – 6:00 pm Weekdays	42	Period 1 Evening 6:00pm-10:00pm	42	Period 2 Night 10:00pm-7:00am	38	Sleep Disturbance (LAeq)	40	Sleep Disturbance (LAMax)	52
RESULTS											
Qualitative Assessment											
Construction Noise Inaudible				<input checked="" type="checkbox"/>		Construction noise intermittently audible				<input type="checkbox"/>	
Construction noise typically audible				<input type="checkbox"/>		Construction noise clearly audible				<input type="checkbox"/>	
Construction noise is dominant noise source				<input type="checkbox"/>		Impulsive construction noise audible (e.g. rock-breaking)				<input type="checkbox"/>	
High noise generating activities audible (e.g. chainsaws)				<input type="checkbox"/>		Tonal construction noise audible				<input type="checkbox"/>	
Quantitative Assessment											
Start Time		08:26pm			Finish time		08:41pm				
LAmax			79.1			dBA					
LAmin			41			dBA					
LAeq 15 min			55			dBA					
Exceedance of NML			13			dBA					
Comments											
<p>During monitoring, construction noise was inaudible. Other noise sources included insects and the local main road. Vehicles from the Hunter Expressway could also be heard but were slightly faint.</p>											

**NCA 05 - 59 Sawyers Gully Rd, Sawyers
Gully**

<CEL-620B Data>

Version	018-03	
<Run>		
Location		
Response	FreeField	
Start		29/08/2023 21:26
Duration		0:15:00
Paused Duration		0:00:00
Serial Number		5015288
Run		33
Overload	No	
Battery Low	No	
<Broadband>		
LZSmax		79
LZSmax Time		29/08/2023 21:31
LZFmax		84.7
LZFmax Time		29/08/2023 21:27
LZImax		88.8
LZImax Time		29/08/2023 21:27
LCSmax		78.4
LCSmax Time		29/08/2023 21:33
LCFmax		81
LCFmax Time		29/08/2023 21:31
LCImax		82.1
LCImax Time		29/08/2023 21:31
LASmax		76.6
LASmax Time		29/08/2023 21:33
LAFmax		79.1
LAFmax Time		29/08/2023 21:33
LAImax		79.7
LAImax Time		29/08/2023 21:33
LZSmin		56.7
LZSmin Time		29/08/2023 21:36
LZFmin		54.3
LZFmin Time		29/08/2023 21:36
LZImin		57.7
LZImin Time		29/08/2023 21:36
LCSmin		53.1
LCSmin Time		29/08/2023 21:26
LCFmin		51
LCFmin Time		29/08/2023 21:28
LCImin		53.7
LCImin Time		29/08/2023 21:29
LASmin		41.8
LASmin Time		29/08/2023 21:30
LAFmin		41
LAFmin Time		29/08/2023 21:30
LAImin		41.4
LAImin Time		29/08/2023 21:30
LZeq		62.6
LCEq		60.5

LAeq	55
LAeq	58.7
Lavg Threshold	0
Lavg Q=4	52
Lavg Q=5	50.3
LZpeak	100.1
LZpeak Time	29/08/2023 21:27
LCpeak	99.1
LCpeak Time	29/08/2023 21:27
LApeak	100.6
LApeak Time	29/08/2023 21:27
LAE	84.6
LAeq(T=80)	42.2
LAFTm3	59.6
LAFTm5	62.4
LAITm3	62.3
LAITm5	64.6
<Octave LZeq>	
16Hz	53.8
31.5Hz	54.5
64Hz	57.2
125Hz	50.2
250Hz	48.9
500Hz	49
1KHz	53.2
2KHz	45.9
4KHz	37.3
8KHz	28.4
16KHz	18.7
<Octave LZFmax>	
16Hz	79.2
31.5Hz	74.5
64Hz	78.8
125Hz	70
250Hz	71.2
500Hz	74.3
1KHz	77.9
2KHz	68.1
4KHz	68.3
8KHz	60.1
16KHz	46.2
<Octave LZSmax>	
16Hz	71.6
31.5Hz	66.7
64Hz	76.8
125Hz	66.6
250Hz	68
500Hz	71.6
1KHz	75.2
2KHz	66.1
4KHz	59.5
8KHz	51.7

16KHz	38.6
<Calibration>	
Before Cal Date	29/08/2023 21:26
Cal Ref.Level	94
Cal Position	1.8
After Cal Date	29/08/2023 21:52
Cal Change	-0.3

PROJECT DETAILS										
Project Name		Hunter Power Project								
Monitoring Location		NCA 01 103 Bishops Bridge Rd, Sawyers Gully								
Date		29/08/2023			Time		10:39pm			
Sampler		C Lang, A van der Kroft								
Construction Activity		Main construction – Night hours								
Distance from Noise Source		1,240 m								
Weather Conditions		Clear, no wind, 10°C								
Noise Source/s		Hunter Expressway, insects, frogs								
SOUND METER DETAILS										
Serial Number		5015288		Make		Casella		Model		CEL-620B
Calibration Details		Meter calibrated by Supplier on the 15/08/2022								
Test Standards		AS 1055.1:1997 and AS 2659.2:1983								
Noise Management Levels	Std Construction Hrs 7:00 am – 6:00 pm Weekdays	50	Period 1 Evening 6:00pm-10:00pm	48	Period 2 Night 10:00pm-7:00am	41	Sleep Disturbance (LAeq)	41	Sleep Disturbance (LAMax)	52
RESULTS										
Qualitative Assessment										
Construction Noise Inaudible				<input checked="" type="checkbox"/>		Construction noise intermittently audible				<input type="checkbox"/>
Construction noise typically audible				<input type="checkbox"/>		Construction noise clearly audible				<input type="checkbox"/>
Construction noise is dominant noise source				<input type="checkbox"/>		Impulsive construction noise audible (e.g. rock-breaking)				<input type="checkbox"/>
High noise generating activities audible (e.g. chainsaws)				<input type="checkbox"/>		Tonal construction noise audible				<input type="checkbox"/>
Quantitative Assessment										
Start Time		10:39pm			Finish time		10:54pm			
LAmx			60.5			dBA				
LAmin			35.8			dBA				
LAeq 15 min			44.2			dBA				
Exceedance of NML			3.2			dBA				
Comments										
<p>During monitoring, construction noise was inaudible. Other noise sources included insects, frogs and the Hunter Expressway.</p> <p>A lapwing bird was present at this location during noise monitoring.</p> <p>Note: This noise monitoring was undertaken closer to the beginning of the road, allowing less exposure to the Hunter Expressway.</p>										

Appendix A NOISE METER RAW DATA- NIGHT HOURS

NCA 01 - 103 Bishops Bridge Rd, Sawyers Gully

<CEL-620B Data>

Version	018-03
<Run>	
Location	
Response	FreeField
Start	29/08/2023 23:39
Duration	0:15:00
Paused Duration	0:00:00
Serial Number	5015288
Run	39
Overload	No
Battery Low	No
<Broadband>	
LZSmax	68.2
LZSmax Time	29/08/2023 23:48
LZFmax	73.5
LZFmax Time	29/08/2023 23:48
LZImax	76.2
LZImax Time	29/08/2023 23:48
LCSmax	62.9
LCSmax Time	29/08/2023 23:40
LCFmax	69.3
LCFmax Time	29/08/2023 23:40
LClmax	72.6
LClmax Time	29/08/2023 23:40
LASmax	53.4
LASmax Time	29/08/2023 23:48
LAFmax	60.5
LAFmax Time	29/08/2023 23:48
LAImax	65.1
LAImax Time	29/08/2023 23:48
LZSmin	55.5
LZSmin Time	29/08/2023 23:42
LZFmin	52.6
LZFmin Time	29/08/2023 23:47
LZImin	56.3
LZImin Time	29/08/2023 23:47
LCSmin	52.7
LCSmin Time	29/08/2023 23:47
LCFmin	49.9
LCFmin Time	29/08/2023 23:53
LClmin	53.6
LClmin Time	29/08/2023 23:41
LASmin	37.1
LASmin Time	29/08/2023 23:52
LAFmin	35.8
LAFmin Time	29/08/2023 23:53
LAImin	36.7
LAImin Time	29/08/2023 23:52

LZeq	58.5
LCeq	55.4
LAEq	44.2
LAlEq	46.3
Lavg Threshold	0
Lavg Q=4	44
Lavg Q=5	43.8
LZpeak	87
LZpeak Time	29/08/2023 23:48
LCpeak	84
LCpeak Time	29/08/2023 23:48
LApeak	84.9
LApeak Time	29/08/2023 23:48
LAE	73.7
LAEq(T=80)	0
LAFTm3	46.9
LAFTm5	47.6
LAITm3	49.1
LAITm5	50
<Octave LZeq>	
16Hz	51.8
31.5Hz	53.6
64Hz	52.4
125Hz	43.6
250Hz	41.3
500Hz	42.9
1KHz	40.8
2KHz	32.4
4KHz	25.3
8KHz	21.5
16KHz	15.5
<Octave LZfmax>	
16Hz	66.8
31.5Hz	63.2
64Hz	67.1
125Hz	64.5
250Hz	56.7
500Hz	56.6
1KHz	51.1
2KHz	55.4
4KHz	55
8KHz	51.4
16KHz	40.1
<Octave LZSmax>	
16Hz	60.4
31.5Hz	58.8
64Hz	60.5
125Hz	57.2
250Hz	52
500Hz	54.6
1KHz	48.8
2KHz	48.5

4KHz	47.5
8KHz	44.1
16KHz	32.9
<Calibration>	
Before Cal Date	29/08/2023 23:38
Cal Ref.Level	94
Cal Position	0.8
After Cal Date	30/08/2023 0:00
Cal Change	0.6

NOISE MONITORING RECORD

PROJECT DETAILS										
Project Name		Hunter Power Project								
Monitoring Location		NCA 02			6 Dawes Avenue, Loxford					
Date		29/08/2023		Time		11:45pm				
Sampler		C Lang, A van der Kroft								
Construction Activity		Main construction – Night hours								
Distance from Noise Source		1,610 m								
Weather Conditions		Clear, no wind, light fog, 10°C								
Noise Source/s		Insects, frogs, traffic from Hunter Expressway								
SOUND METER DETAILS										
Serial Number		5015288		Make		Casella		Model		CEL-620B
Calibration Details		Meter calibrated by Supplier on the 15/08/2022								
Test Standards		AS 1055.1:1997 and AS 2659.2:1983								
Noise Management Levels	Std Construction Hrs 7:00 am – 6:00 pm Weekdays	45	Period 1 Evening 6:00pm-10:00pm	45	Period 2 Night 10:00pm-7:00am	43	Sleep Disturbance (LAeq)	43	Sleep Disturbance (LAMax)	53
RESULTS										
Qualitative Assessment										
Construction Noise Inaudible			<input checked="" type="checkbox"/>		Construction noise intermittently audible			<input type="checkbox"/>		
Construction noise typically audible			<input type="checkbox"/>		Construction noise clearly audible			<input type="checkbox"/>		
Construction noise is dominant noise source			<input type="checkbox"/>		Impulsive construction noise audible (e.g. rock-breaking)			<input type="checkbox"/>		
High noise generating activities audible (e.g. chainsaws)			<input type="checkbox"/>		Tonal construction noise audible			<input type="checkbox"/>		
Quantitative Assessment										
Start Time		11:45pm			Finish time		12:00am			
LAmax			74.3			dBA				
LAmin			39.6			dBA				
LAeq 15 min			47.2			dBA				
Exceedance of NML			4.2			dBA				
Comments										
<p>During monitoring, construction noise was inaudible. Other noise sources insects, frogs and the Hunter Expressway.</p> <p>Noise from the Hunter Expressway was exceptionally loud at this location.</p>										

Appendix A - NOISE METER: RAW DATA – NIGHT HOURS

**NCA 02 - 10 Dawes Avenue,
Loxford**

<CEL-620B Data>

Version	018-03
<Run>	
Location	
Response	FreeField
Start	30/08/2023 0:45
Duration	0:15:00
Paused Duration	0:00:00
Serial Number	5015288
Run	42
Overload	No
Battery Low	No
<Broadband>	
LZSmax	83.2
LZSmax Time	30/08/2023 1:00
LZFmax	91.3
LZFmax Time	30/08/2023 1:00
LZImax	95
LZImax Time	30/08/2023 1:00
LCSmax	77.2
LCSmax Time	30/08/2023 1:00
LCFmax	85.3
LCFmax Time	30/08/2023 1:00
LCImax	89.2
LCImax Time	30/08/2023 1:00
LASmax	65.7
LASmax Time	30/08/2023 1:00
LAFmax	74.3
LAFmax Time	30/08/2023 1:00
LAImax	79.1
LAImax Time	30/08/2023 1:00
LZSmin	55.9
LZSmin Time	30/08/2023 0:57
LZFmin	53.3
LZFmin Time	30/08/2023 0:57
LZImin	57
LZImin Time	30/08/2023 0:57
LCSmin	52.8
LCSmin Time	30/08/2023 0:57
LCFmin	51
LCFmin Time	30/08/2023 0:54
LCImin	53.5
LCImin Time	30/08/2023 0:57
LASmin	40.2
LASmin Time	30/08/2023 0:51
LAFmin	39.6
LAFmin Time	30/08/2023 0:51
LAImin	39.8
LAImin Time	30/08/2023 0:51
LZeq	60.4

LCeq	56.7
LAeq	47.2
LAleq	53
Lavg Threshold	0
Lavg Q=4	46.6
Lavg Q=5	46.2
LZpeak	106
LZpeak Time	30/08/2023 1:00
LCpeak	102.6
LCpeak Time	30/08/2023 1:00
LApeak	104.8
LApeak Time	30/08/2023 1:00
LAE	76.7
LAeq(T=80)	35.5
LAFTm3	53.5
LAFTm5	55.2
LAITm3	58.4
LAITm5	60.1
<Octave LZeq>	
16Hz	54.9
31.5Hz	54.3
64Hz	51.5
125Hz	49.8
250Hz	43.4
500Hz	45.3
1KHz	43.2
2KHz	36.1
4KHz	34.8
8KHz	30.6
16KHz	19.4
<Octave LZFmax>	
16Hz	86.8
31.5Hz	85.5
64Hz	76.3
125Hz	73.3
250Hz	61.1
500Hz	62.4
1KHz	64
2KHz	65.5
4KHz	70.3
8KHz	68.3
16KHz	55.5
<Octave LZSmax>	
16Hz	79.2
31.5Hz	77.7
64Hz	68.2
125Hz	65.1
250Hz	53.8
500Hz	59.8
1KHz	55.5
2KHz	57
4KHz	61.6

8KHz	59.5
16KHz	46.7
<Calibration>	
Before Cal Date	30/08/2023 0:45
Cal Ref.Level	94
Cal Position	1.8

NOISE MONITORING RECORD

PROJECT DETAILS											
Project Name		Hunter Power Project									
Monitoring Location		NCA 03 20 Bowditch Avenue, Loxford									
Date		29/08/2023		Time		11:26pm					
Sampler		C Lang, A van der Kroft									
Construction Activity		Main construction – Night hours									
Distance from Noise Source		1,150 m									
Weather Conditions		Clear, no wind, light fog, 10°C									
Noise Source/s		Insects, frogs, Hunter Expressway									
SOUND METER DETAILS											
Serial Number		5015288		Make		Casella		Model		CEL-620B	
Calibration Details		Meter calibrated by Supplier on the 15/08/2022									
Test Standards		AS 1055.1:1997 and AS 2659.2:1983									
Noise Management Levels		Std Construction Hrs 7:00 am – 6:00 pm Weekdays	43	Period 1 Evening 6:00pm-10:00pm	43	Period 2 Night 10:00pm-7:00am	38	Sleep Disturbance (LAeq)	42	Sleep Disturbance (LAMax)	52
RESULTS											
Qualitative Assessment											
Construction Noise Inaudible				<input checked="" type="checkbox"/>		Construction noise intermittently audible				<input type="checkbox"/>	
Construction noise typically audible				<input type="checkbox"/>		Construction noise clearly audible				<input type="checkbox"/>	
Construction noise is dominant noise source				<input type="checkbox"/>		Impulsive construction noise audible (e.g. rock-breaking)				<input type="checkbox"/>	
High noise generating activities audible (e.g. chainsaws)				<input type="checkbox"/>		Tonal construction noise audible				<input type="checkbox"/>	
Quantitative Assessment											
Start Time		11:26pm			Finish time		11:41pm				
LAm _{ax}				58.6			dBA				
LAm _{in}				33.4			dBA				
LAeq 15 min				35.9			dBA				
Exceedance of NML				Nil			dBA				
Comments											
<p>During monitoring, construction noise was inaudible. Other noise sources included insects, frogs and the Hunter Expressway.</p>											

Appendix A - NOISE METER : RAW DATA – NIGHT HOURS

**NCA 03 - 20 Bowditch Avenue,
Loxford**

<CEL-620B Data>

Version	018-03
<Run>	
Location	
Response	FreeField
Start	30/08/2023 0:26
Duration	0:15:00
Paused Duration	0:00:00
Serial Number	5015288
Run	41
Overload	No
Battery Low	No
<Broadband>	
LZSmax	67.9
LZSmax Time	30/08/2023 0:37
LZFmax	73.2
LZFmax Time	30/08/2023 0:37
LZImax	76.9
LZImax Time	30/08/2023 0:37
LCSmax	59.7
LCSmax Time	30/08/2023 0:37
LCFmax	66.9
LCFmax Time	30/08/2023 0:37
LClmax	70.8
LClmax Time	30/08/2023 0:37
LASmax	50.8
LASmax Time	30/08/2023 0:37
LAFmax	58.6
LAFmax Time	30/08/2023 0:37
LAImax	62.7
LAImax Time	30/08/2023 0:37
LZSmin	50.9
LZSmin Time	30/08/2023 0:40
LZFmin	48.3
LZFmin Time	30/08/2023 0:30
LZImin	51.6
LZImin Time	30/08/2023 0:39
LCSmin	46.6
LCSmin Time	30/08/2023 0:31
LCFmin	44.4
LCFmin Time	30/08/2023 0:31
LClmin	47.2
LClmin Time	30/08/2023 0:32
LASmin	34.1
LASmin Time	30/08/2023 0:31
LAFmin	33.4
LAFmin Time	30/08/2023 0:31
LAImin	33.7
LAImin Time	30/08/2023 0:31

LZeq	53.8
LCeq	49
Laeq	35.9
LAleq	39.9
Lavg Threshold	0
Lavg Q=4	35.7
Lavg Q=5	35.7
LZpeak	84.8
LZpeak Time	30/08/2023 0:37
LCpeak	79.8
LCpeak Time	30/08/2023 0:37
LApeak	80.8
LApeak Time	30/08/2023 0:37
LAE	65.4
LAeq(T=80)	0
LAFTm3	40.1
LAFTm5	40.7
LAITm3	43.5
LAITm5	44.5
<Octave LZeq>	
16Hz	48.8
31.5Hz	47.4
64Hz	44.9
125Hz	39.7
250Hz	35
500Hz	31.4
1KHz	29.5
2KHz	29
4KHz	26.8
8KHz	16.1
16KHz	14.3
<Octave LZFmax>	
16Hz	65.5
31.5Hz	67.1
64Hz	62
125Hz	56.5
250Hz	54.6
500Hz	54.7
1KHz	46.8
2KHz	54.9
4KHz	53.5
8KHz	42
16KHz	36
<Octave LZSmax>	
16Hz	59.6
31.5Hz	59.5
64Hz	54.2
125Hz	49.5
250Hz	46.3
500Hz	46.6
1KHz	40.1
2KHz	47.9

4KHz	45.1
8KHz	35.2
16KHz	28.4
<Calibration>	
Before Cal Date	30/08/2023 0:25
Cal Ref.Level	94
Cal Position	1.1
After Cal Date	30/08/2023 0:45
Cal Change	0.7

NOISE MONITORING RECORD

PROJECT DETAILS										
Project Name		Hunter Power Project								
Monitoring Location		NCA 04			464 Cessnock Rd, Gillieston Heights					
Date		29/03/2023		Time		10:08pm				
Sampler		C Lang, A van der Kroft								
Construction Activity		Main construction- Night hours								
Distance from Noise Source		1,240 m								
Weather Conditions		Clear, no wind, 10°C								
Noise Source/s		Insects, frogs, traffic on the main road								
SOUND METER DETAILS										
Serial Number		5015288		Make		Casella		Model		CEL-620B
Calibration Details		Meter calibrated by Supplier on the 15/08/2022								
Test Standards		AS 1055.1:1997 and AS 2659.2:1983								
Noise Management Levels	Std Construction Hrs 7:00 am – 6:00 pm Weekdays	40	Period 1 Evening 6:00pm-10:00pm	35	Period 2 Night 10:00pm-7:00am	35	Sleep Disturbance (LAeq)	40	Sleep Disturbance (LAMax)	52
RESULTS										
Qualitative Assessment										
Construction Noise Inaudible				<input checked="" type="checkbox"/>		Construction noise intermittently audible				<input type="checkbox"/>
Construction noise typically audible				<input type="checkbox"/>		Construction noise clearly audible				<input type="checkbox"/>
Construction noise is dominant noise source				<input type="checkbox"/>		Impulsive construction noise audible (e.g. rock-breaking)				<input type="checkbox"/>
High noise generating activities audible (e.g. chainsaws)				<input type="checkbox"/>		Tonal construction noise audible				<input type="checkbox"/>
Quantitative Assessment										
Start Time		10:08pm			Finish time		10:23pm			
LAmax			84.6			dBA				
LAmin			40.4			dBA				
LAeq 15 min			65			dBA				
Exceedance of NML			30			dBA				
Comments										
<p>During monitoring, construction noise was inaudible. Other noise sources insects, frogs and vehicles on the main road.</p> <p>Lapwing plovers were present in this location during monitoring.</p>										

Appendix A - NOISE METER: RAW DATA – NIGHT HOURS

**NCA 04 - 464 Cessnock Rd,
Gillieston Heights**

<CEL-620B Data>

Version

<Run>

Location

Response FreeField

Start 29/08/2023 23:08

Duration 0:15:00

Paused Duration 0:00:00

Serial Number 5015288

Run 38

Overload No

Battery Low No

<Broadband>

LZSmax 89.2

LZSmax Time 29/08/2023 23:13

LZFmax 91.7

LZFmax Time 29/08/2023 23:13

LZImax 92.2

LZImax Time 29/08/2023 23:13

LCSmax 89.2

LCSmax Time 29/08/2023 23:13

LCFmax 91.6

LCFmax Time 29/08/2023 23:13

LCImax 92.2

LCImax Time 29/08/2023 23:13

LASmax 82.4

LASmax Time 29/08/2023 23:13

LAFmax 84.6

LAFmax Time 29/08/2023 23:13

LAImax 85.4

LAImax Time 29/08/2023 23:13

LZSmin 54.7

LZSmin Time 29/08/2023 23:13

LZFmin 53.1

LZFmin Time 29/08/2023 23:13

LZImin 55.2

LZImin Time 29/08/2023 23:13

LCSmin 51.5

LCSmin Time 29/08/2023 23:23

LCFmin 50.1

LCFmin Time 29/08/2023 23:23

LCImin 52

LCImin Time 29/08/2023 23:20

LASmin 41.1

LASmin Time 29/08/2023 23:13

LAFmin 40.4

LAFmin Time 29/08/2023 23:13

LAImin 40.8

LAImin Time 29/08/2023 23:13

LZeq 69.9

LCeq	69.2
LAeq	65
LAleq	67.3
Lavg Threshold	0
Lavg Q=4	63.2
Lavg Q=5	61.9
LZpeak	100.1
LZpeak Time	29/08/2023 23:13
LCpeak	100.8
LCpeak Time	29/08/2023 23:13
LApeak	96
LApeak Time	29/08/2023 23:13
LAE	94.5
LAeq(T=80)	56.6
LAFTm3	69.7
LAFTm5	71.2
LAITm3	71
LAITm5	72.3
<Octave LZeq>	
16Hz	52.1
31.5Hz	54.8
64Hz	63.6
125Hz	59.7
250Hz	62.8
500Hz	61.3
1KHz	61.9
2KHz	57
4KHz	46
8KHz	36.9
16KHz	25.3
<Octave LZFmax>	
16Hz	67.8
31.5Hz	74.7
64Hz	88.5
125Hz	82.5
250Hz	89.7
500Hz	86.3
1KHz	78.3
2KHz	73.5
4KHz	66.2
8KHz	57.9
16KHz	49.1
<Octave LZSmax>	
16Hz	63.4
31.5Hz	71.5
64Hz	86
125Hz	79.1
250Hz	87.1
500Hz	84
1KHz	74.9
2KHz	69.5
4KHz	62.3

8KHz	54.6
16KHz	45.5
<Calibration>	
Before Cal Date	29/08/2023 22:52
Cal Ref.Level	94
Cal Position	1.3
After Cal Date	29/08/2023 23:38
Cal Change	-0.5

NOISE MONITORING RECORD

PROJECT DETAILS										
Project Name		Hunter Power Project								
Monitoring Location		NCA 05			15 Sawyers Gully Rd, Sawyers Gully					
Date		29/08/2023		Time		11:01pm				
Sampler		C Lang, A van der Kroft								
Construction Activity		Main construction – Night hours								
Distance from Noise Source		3,210 m								
Weather Conditions		Clear, no wind, light fog, 10°C								
Noise Source/s		Insects, Hunter Expressway, vehicles on main road								
SOUND METER DETAILS										
Serial Number		5015288		Make		Casella		Model		CEL-620B
Calibration Details		Meter calibrated by Supplier on the 15/08/2022								
Test Standards		AS 1055.1:1997 and AS 2659.2:1983								
Noise Management Levels	Std Construction Hrs 7:00 am – 6:00 pm Weekdays	42	Period 1 Evening 6:00pm-10:00pm	42	Period 2 Night 10:00pm-7:00am	38	Sleep Disturbance (LAeq)	40	Sleep Disturbance (LAMax)	52
RESULTS										
Qualitative Assessment										
Construction Noise Inaudible				<input checked="" type="checkbox"/>		Construction noise intermittently audible				<input type="checkbox"/>
Construction noise typically audible				<input type="checkbox"/>		Construction noise clearly audible				<input type="checkbox"/>
Construction noise is dominant noise source				<input type="checkbox"/>		Impulsive construction noise audible (e.g. rock-breaking)				<input type="checkbox"/>
High noise generating activities audible (e.g. chainsaws)				<input type="checkbox"/>		Tonal construction noise audible				<input type="checkbox"/>
Quantitative Assessment										
Start Time		11:01pm			Finish time		11:16pm			
LAm _{ax}			76.6			dBA				
LAm _{in}			40.7			dBA				
LAeq 15 min			53.1			dBA				
Exceedance of NML			15.1			dBA				
Comments										
<p>During monitoring, construction noise was inaudible. Other noise sources included insects and the local main road. Vehicles from the Hunter Expressway could also be heard but were slightly faint.</p>										

Appendix A - NOISE METER : RAW DATA – NIGHT HOURS

	NCA 05 - 59 Sawyers
<CEL-620B Data>	Gully Rd, Sawyers Gully
Version	018-03
<Run>	
Location	
Response	FreeField
Start	30/08/2023 0:01
Duration	0:15:00
Paused Duration	0:00:00
Serial Number	5015288
Run	40
Overload	No
Battery Low	No
<Broadband>	
LZSmax	86.5
LZSmax Time	30/08/2023 0:12
LZFmax	89.3
LZFmax Time	30/08/2023 0:12
LZImax	90.2
LZImax Time	30/08/2023 0:12
LCSmax	86.1
LCSmax Time	30/08/2023 0:12
LCFmax	88.8
LCFmax Time	30/08/2023 0:12
LClmax	89.8
LClmax Time	30/08/2023 0:12
LASmax	73.6
LASmax Time	30/08/2023 0:03
LAFmax	76.6
LAFmax Time	30/08/2023 0:03
LAlmax	77.7
LAlmax Time	30/08/2023 0:03
LZSmin	56.4
LZSmin Time	30/08/2023 0:07
LZFmin	54.3
LZFmin Time	30/08/2023 0:08
LZImin	57.2
LZImin Time	30/08/2023 0:04
LCSmin	53.2
LCSmin Time	30/08/2023 0:15
LCFmin	51.8
LCFmin Time	30/08/2023 0:07
LClmin	53.7
LClmin Time	30/08/2023 0:04
LASmin	41.5
LASmin Time	30/08/2023 0:07
LAFmin	40.7
LAFmin Time	30/08/2023 0:07
LAlmin	41.2

LAImin Time	30/08/2023 0:07
LZeq	63.9
LCeq	62.8
LReq	53.1
LReq	55.6
Lavg Threshold	0
Lavg Q=4	50.3
Lavg Q=5	48.8
LZpeak	99.1
LZpeak Time	30/08/2023 0:12
LCpeak	98.5
LCpeak Time	30/08/2023 0:12
LApk	88.8
LApk Time	30/08/2023 0:12
LAE	82.6
LReq(T=80)	0
LAFTm3	57
LAFTm5	59.1
LAITm3	58.9
LAITm5	60.6
<Octave LZeq>	
16Hz	53.1
31.5Hz	54.4
64Hz	58.9
125Hz	59
250Hz	50.7
500Hz	48.2
1KHz	50.4
2KHz	43.3
4KHz	34.4
8KHz	25.6
16KHz	17.8
<Octave LZfmax>	
16Hz	72.1
31.5Hz	76
64Hz	84.9
125Hz	87
250Hz	76.1
500Hz	73.3
1KHz	75.4
2KHz	65
4KHz	56.6
8KHz	50.7
16KHz	43
<Octave LZsmax>	
16Hz	68.1
31.5Hz	70.8
64Hz	81.8
125Hz	84
250Hz	73.3
500Hz	69.5
1KHz	72

2KHz	62.7
4KHz	53.2
8KHz	47.2
16KHz	39.2
<Calibration>	
Before Cal Date	30/08/2023 0:00
Cal Ref.Level	94
Cal Position	1.4
After Cal Date	30/08/2023 0:25
Cal Change	-0.3