


RP2J Project OOHW application form

Out of hours work approval request form			
No:	Notification date:	Approval date:	Project:
026	23/09/2021		RP2J – Southern Utilities
A. Contact details	Name	Mobile number	Email
Contractor Environmental Site Representative	Richard Lipar	[REDACTED]	[REDACTED]
Contractor Project Manager	Mike Billington	[REDACTED]	[REDACTED]
Contractor Foreman	Daniel Tregeagle	[REDACTED]	[REDACTED]
Contractor Project Engineer	Joey O'Connor	[REDACTED]	[REDACTED]
B. Details of work:			
Include a map showing location of work extent and nearest sensitive receivers			
Location / chainages:	Lookout Rd at CH71155 Refer Map Below: 		
NCA/s:	NCA-13		
Description of works – also include a brief description of the sequence of activities:	<p>Works involve disconnection of an existing low voltage electrical overhead wire across Lookout Road. No ground disturbance or tree clearing is required. All works will be above ground utilising new LV pole installed on 20/09/21 and the existing pole within Blackbutt Reserve.</p> <p>2000 - 2030: Complete pre-start briefing with project team at compound</p> <p>2030 - 2115: Set up traffic control</p> <p>2115 - 2130: Mobilise equipment to the work area and await Ausgrid electrical isolation</p> <p>2200 - 0000: Disconnect and remove overhead wire. Reconnect temporary feed to Blackbutt utility building. (no ground disturbance required)</p> <p>0015 – 0100: Remove traffic control and reopen lanes to traffic</p>		

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Machinery/ plant to be used	Light Truck Elevated Working Platform (bucket truck) Battery operated power tools
Traffic control measures required:	Lookout Road Northbound and Southbound Lane 1 Closures
Lighting required:	Battery operated task lighting will be provided at specific locations.
Proposed dates:	06/10/21
Proposed times:	Start 20:00 – Finish 01:00
Justification – why does work need to occur outside of standard construction hours?: (attach support information as required)	Works require electrical isolation to undertake the works safely. Ausgrid will only permit this work at specific times (10:00pm to 5:00am) due to the impact to residents of loss of electrical supply.
C. Risk assessment	
NML (refer Table 3-2 of OOHW protocol)	Evening: 54 dB(A). Night: 38 dB(A)
Is the work highly noise intensive? (above 75dB(A) L_{Aeq} (15 minute))	No
Risk factor category (refer section 4.3 of OOHW protocol):	Low Risk. Maximum worst case cumulative predicted noise level (L_{Aeq} 15 min.) = 38dB(A) for 1 resident which is equal to the NML.
D. Details of noise or vibration assessment completed:	
<p>Detailed noise assessments were completed using noise modelling program named <i>KNOWnoise: Minor Works</i> which is developed and owned by Hutchison Weller. This program, and it's more advanced version <i>KNOWnoise</i>, are used on many large-scale infrastructure projects to determine and model likely noise impacts on sensitive receivers.</p> <p>As works are predicted to carry over the Evening and Night OOHW Periods, a detailed noise assessment was completed to determine predicted noise impacts for the Night Period only, as this is the worst case for the RBL (refer Appendix A). Detailed noise assessment report is attached to this OOHW Application. Report includes a map of predicted impacts on sensitive receivers and predicted noise levels at each receiver's address.</p> <p>All applicable data was added to the model, including but not limited to, specific information on the proposed activity, project adopted RBLs and NMLs, extent of works, plant and equipment to be used, proposed mitigation measures etc. Using this data, and data within the program, detailed noise assessment reports were produced giving accurate predicted noise impacts for the period assessed. Specific assessment methodology is described on Page 3 of each report.</p> <p>Predicted impacts:</p> <p>The predicted maximum worst case cumulative noise level (L_{Aeq}, 15 min) is 38dB(A). There is 1 receiver for which the works will be equal to NML but noticeable.</p> <p>Refer to the following detailed Noise Assessments in Appendix A:</p>	

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Predicted Vibration Impacts:

No vibration impacts are predicted as a result of these works. No plant or equipment will encroach within the minimum safe working distance (18m).

The activity is not considered to encroach into either "human comfort" (>1mm/s) or "structural damage" (>5mm/s) vibration criteria, based on distance, and equipment and methodology used.

E. Proposed mitigation measures, including respite

The following mitigation measures were proposed based on those identified in the *OOHW Protocol – Section 5.1* and *Table 5-1: Hierarchy for application of additional mitigation for airborne noise*.

Standard Mitigation Measures (OOHW Protocol):

- Modifying behavioural practices on site
- Equipment selection / maintaining and monitoring plant
- Use and siting of plant and hoardings
- Site inductions
- Use of non-tonal reversing alarms
- Stakeholder notification
- Planning noisier work to be carried out earlier in the period.

NVMP Mitigation measures:

- Reduction of machinery usage outside these properties during the night period is also noted.
- Where practical, operating machines at low speed / power and switching them off when not in use rather than leaving them idling for prolonged periods;
- Minimising the reversing of machines;
- All employees, contractors and subcontractors are to receive an environmental induction.
- No swearing or unnecessary shouting or loud stereos/radios on site.
- Limit compression braking at night in residential areas.
- No dropping of materials from height, throwing of metal items and slamming of doors.

F. Community consultation

Outline consultation undertaken for the proposed OOHW:

Propose to provide email notification to residents in 136 Lookout Road.

Has respite periods for OOHW been identified with the affected community on a monthly basis and a three-month schedule of likely OOHW provided (refer CoA E29)?

Yes, likely OOHW identified in 3 monthly look-ahead notification which covers likely OOHW. Notification was delivered to community on 9th September.

Respite is not applicable as works would take place on a single night with noise levels not predicted to exceed the NML at the nearest receiver.

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Has the outcome of community consultation, the identified respite periods and scheduling of likely OOHW been provided to the ER, EPA and Planning Secretary?

The schedule of OOHW is provided to the ER, EPA and the Planning Secretary on a monthly basis. Transport for NSW also provides further detail on the community consultation and respite to the ER and Planning Secretary through the OOHW application process when relevant to OOHW, and when approval is sought. The EPA will be provided with relevant information through the six-monthly compliance reporting process by Transport.

G. Respite framework

Outline any previous respite within the last month and the status of community agreements (where relevant)?

Previous OOHW scheduled on 30th of September providing about one week respite before this activity.

Have cumulative impacts from OOHW permitted by an EPL been considered during the development appropriate respite?

N/A

H. Details of non-residential receivers (if any) and corresponding NMLs

Comments:

Using the current noise assessment software it is noted that noise at the nearby sensitive receiver of John Hunter Hospital will not exceed the NML of 38db(A) during the planned works.

I. Are there any properties at risk of exceeding the screening criteria for cosmetic damage?

Comments:

No

I. Review/ Endorsements

Contractor Community Liaison Representative

Date: 23 Sept 2021

Email notification to be provided to residents of 136 lookout Road

Have the works been reviewed and endorsed? Yes

Name:

Signature:

Date:

Nikki Taylor

23/09/21

Comments:

Transport for NSW Environmental Manager (or delegate)

Agreed mitigation measures:

Have the works been reviewed and endorsed? Yes / No

Have the works been approved where neither low or high risk? Yes / ~~No~~

Name:


Signature:

Date:

Andrew Grainger

30/09/2021

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	Comments:		
Transport for NSW Project Manager	Have the works been reviewed and endorsed?		Yes / No
	Have the works been approved where neither low or high risk?		Yes / No
	Name:	Signature:	Date:
	Brett Kendall		30/09/2021
	Comments:		
ER approval (low risk activities)	Are the works approved?		Yes / No
	Name:	Signature:	Date:
	Comments:		
Planning Secretary approval (high risk activities)	Are the works approved?		Yes / No
	Name:	Signature:	Date:
	Comments:		

Appendix A - RP2J - Southern Utilities - Noise Impact Assessment

Construction noise impact assessment

	RP2J		
Proposed works	005 - Ausgrid Outage - Blackbutt Reserve		
Proponent	Quickway		
Assessment Date	23/09/2021		
Prepared by	Joey O'Connor	Assessment Id	005

Introduction

This report has been prepared using the construction noise self-assessment platform KNOWnoise: *Minor Works* and presents an assessment of the likely noise impacts related to proposed works associated with the above project. Where possible, these works would be completed during standard construction hours; however, there may be a need to work outside these hours due to technical, community or access limitations. The location of the proposed works is illustrated in Appendix A.

Planned works

A description of the proposed works is as follows.

Disconnection and removal of LV overhead feeding Blackbutt Reserve

Proposed activities and equipment for the works are summarised in Appendix B.

Though subject to change, the works are expected to commence around 06/10/2021 and would be completed by 07/10/2021.

Assessment criteria and mitigation requirements

The Interim Construction Noise Guideline (ICNG) (DECC 2009) describes noise more than the background level as potentially having an adverse impact on sensitive receivers and increasing the likelihood of complaint. During standard construction hours, where construction noise is within 10 dB(A) of the RBL, impacts would be acceptable.

Where construction noise is more than 10 dB(A) above the RBL during standard construction hours, a residential receiver is considered noise affected and the proponent should undertake all reasonable and feasible steps necessary to manage the impact and consult with the affected community.

Above a LAeq, 15 minute noise level of 75 dB(A), a receiver is highly affected, requiring consideration of additional mitigation measures including alternative accommodation in the night period.

Outside standard construction hours, construction noise at a residential receiver more than 5 dB(A) above the RBL is taken to be noise affected.

In addition, annoying noise such as rock hammers, impact piling, or other impulsive noise sources usually result in greater annoyance than continuous construction noise. A 5 dB(A) penalty is applicable to such activities prior to comparison with the NMLs.

Other sensitive land uses, such as schools and offices, typically find noise from construction disruptive when the properties are being used (such as during work and school times). Table 2 presents NMLs from the ICNG for sensitive land uses based on the principle that the characteristic activities for each of these land uses should not be unduly disturbed.

Table 1 Non-residential sensitive land uses noise management levels

Land use	Noise assessment location	NML (L _{Aeq,15min})
Classrooms at schools and other educational institutions	Internal	45
Places of worship		
Active recreation areas (such as sporting activities and activities which generate their own noise or focus for participants)	External	65
Passive recreation areas (contemplative activities that generate little noise and where benefits are compromised by external noise intrusion, for example, reading, meditation)	External	60
Industrial premises	External	75
Office, retail outlets	External	70

As part of planning for out of hours works, standard mitigation measures, as described in the ICNG and CNVG, would be implemented where reasonable and feasible. However, after these measures have been applied, noise and vibration levels may continue to exceed the NMLs.

In this case, additional mitigation measures outlined in the CNVG, which largely focus on engagement with affected sensitive receivers, should be implemented where reasonable and feasible, unless other agreements are in place with the impacted receiver.

Triggers and additional mitigation measures for airborne noise are summarised in Table 2. Further details of specific additional mitigation measures are described in the CNVG.

Table 2 Triggers for additional mitigation measures – Airborne noise (Roads and Maritime 2016)

Predicted airborne LAeq(15min) noise level at receiver			
Perception	dB(A) above RBL	dB(A) above NML	Additional mitigation measures
All hours			
75 dB(A) or greater			N, V, PC, RO
Standard hours: Mon - Fri (7am – 6pm), Sat (8am – 1pm), Sun/Pub Hol (Nil)			
Noticeable	5 to 10	0	-
Clearly audible	10 to 20	< 10	-
Moderately intrusive	20 to 30	10 to 20	N, V
Highly intrusive	> 30	> 20	N, V
OOHW Period 1: Mon – Fri (6pm – 10pm), Sat (7am – 8am & 1pm – 10pm), Sun/Pub Hol (8am – 6pm)			
Noticeable	5 to 10	<5	-
Clearly audible	10 to 20	5 to 15	N, R1, DR
Moderately intrusive	20 to 30	15 to 25	V, N, R1, DR
Highly intrusive	> 30	>25	V, IB, N, R1, DR, PC, SN
OOHW Period 2: Mon – Fri (10pm – 7am), Sat (10pm – 8am), Sun/Pub Hol (6pm – 7am)			
Noticeable	5 to 10	<5	N
Clearly audible	10 to 20	5 to 15	V, N, R2, DR
Moderately intrusive	20 to 30	15 to 25	V, IB, N, PC, SN, R2, DR
Highly intrusive	> 30	>25	AA, V, IB, N, PC, SN, R2, DR

Notes:

PC = Phone calls
 V = verification
 IB = Individual briefings
 N= Notification
 AA = Alternative accommodation

SN = Specific notifications
 RO = Respite offer
 R1 = Respite period 1
 R2 = Respite period 2
 DR = Duration respite

Perception = relates to levels above RBL
 NML = Noise management level
 HA = Highly affected

Existing environment and noise management levels

The proposed works would be undertaken in a predominantly Suburban/ Urban, characterised as:

Areas with low density transportation.

Typically local traffic, light vehicles, intermittent traffic flow

Background noise levels adopted for the project area and associated noise management levels (NMLs) are summarised in Table 3. NMLs have been established in line with the ICNG.

Table 3 Construction NMLs

Land use	Suburban/ Urban		Using custom background noise data?		Yes
	Day	Weekend Day	Evening	Night	Sleep
RBL	56	56	49	33	
NML	66	61	54	38	48

Sleep disturbance

The ICNG recommends where construction works are planned to extend over more than two consecutive nights, the maximum noise level should be considered for the purposes of establishing the likelihood of sleep disturbance. The Road Noise Policy suggests that maximum internal noise levels below 50-55 dB(A) are unlikely to awaken people from sleep and one or two noise events per night, with maximum internal noise levels of 65-70 dB(A) are not likely to affect health and wellbeing significantly.

Based on this, a sleep awakening criterion of 55 dB(A) (internal) is typically adopted for works. Given that noise attenuation of 10 dB(A) is typically provided by an open window, a sleep awakening criterion of L_{Amax} 65 dB(A) (external) has been applied to residential bedroom façades. This is consistent with the sleep disturbance threshold described in Appendix E of the CNVG.

Assessment methodology

Based on the nominated works area (illustrated in Appendix A), proposed equipment and the minimum distance from the works to each sensitive receiver, noise levels were calculated based on CONCAWE (1981) *Propagation of noise from petroleum and petrochemical complexes to neighboring communities*.

This method considers geometric spreading, atmospheric absorption, ground effects and is valid for meteorological conditions of a gentle breeze from source to receiver and stable atmosphere (temperature inversion).

KNOWnoise: Minor works is a 2-Dimensional assessment platform and does not consider terrain effects (e.g. hills, valleys) or the presence of solid structures such as homes or noise barriers. This will result in a conservative prediction, suitable for the project being assessed.

Considering the nature of the works and the type of surrounding land uses, sensitive receivers up to a radius of 600 metres from the works have been included in the assessment.

Sound power levels and predicted noise levels depend on the number of plant items operating at any one time and their precise location relative to a sensitive receiver. Equipment was assumed to be working at the worst-case location relative to each receiver and represents a worst-case assessment. Where the activity is further away from receivers or less equipment is used the predicted levels will decrease.

Sound power levels for plant and equipment expected to be used for each activity has been estimated based on guidance in the following standards and guidelines as well as typical measured noise levels for specific equipment.

- “ Australian Standard AS2436-2010: Guide to noise and vibration control on construction, demolition and maintenance sites
- “ Construction Noise and Vibration Strategy 7TP-ST-157/2.0 (CNVS), (TfNSW, 2018)
- “ Construction Noise and Vibration Guideline (CNVG) (Roads and Maritime Services, 2016)
- “ British Standard 5228-1:2009 Code of practice for noise and vibration control on construction and open sites

“ United Kingdom Department for Environment, Food and Rural Affairs (DEFRA) Noise database for prediction of noise on construction and open sites

Construction noise sources and associated sound power levels are listed in Appendix B. The maximum predicted LAeq noise level within the work area was identified for each receiver.

Predicted noise levels

Detailed predicted noise levels for each potentially affected receiver are presented Appendix C.

A summary of predicted noise levels in comparison with ICNG assessment criteria for the Night period is presented in Table 4.

Table 4 Summary of predicted noise levels with comparison against ICNG criteria for the Night period.

Criterion	Predicted number of receivers
Maximum cumulative predicted L _{Aeq, 15 minute} noise level	38 dB(A)
Number of highly noise affected receivers (>75 dB)	0
1 – 10 dB above NML	0
10 – 20 dB above NML	0
20+ dB above NML	0

For works outside standard hours, up to 0 receivers are predicted to be classified as Highly Impacted during the Night period. A summary of the number of receivers in each class is presented in Table 5.

Table 5 Summary of predicted noise levels with comparison against CNVG criteria

Impact class	Predicted noise level	Predicted number of receivers
Noticeable	1 – 5 dB above NML	1
Clearly audible	5 – 15 dB above NML	0
Moderately impacted	15 – 25 dB above NML	0
Highly Impacted	> 25 dB above NML	0

Predicted impact classes for the Night period are illustrated graphically in Appendix C. Each identified receiver in the study area has been coloured to highlight the predicted level of impact.

Sleep disturbance

In the event works are planned for more than two consecutive nights, up to 0 are expected to exceed the sleep awakening criteria. Where any exceedances if the awakening criteria are predicted, additional care should be taken and mitigation measures implemented in the with the CNVG.

Proposed noise mitigation measures

The safeguards and controls listed in Table 6 will be implemented where reasonable and feasible with the intention of achieving the project noise criteria and to maintain noise impacts at a practical minimum.

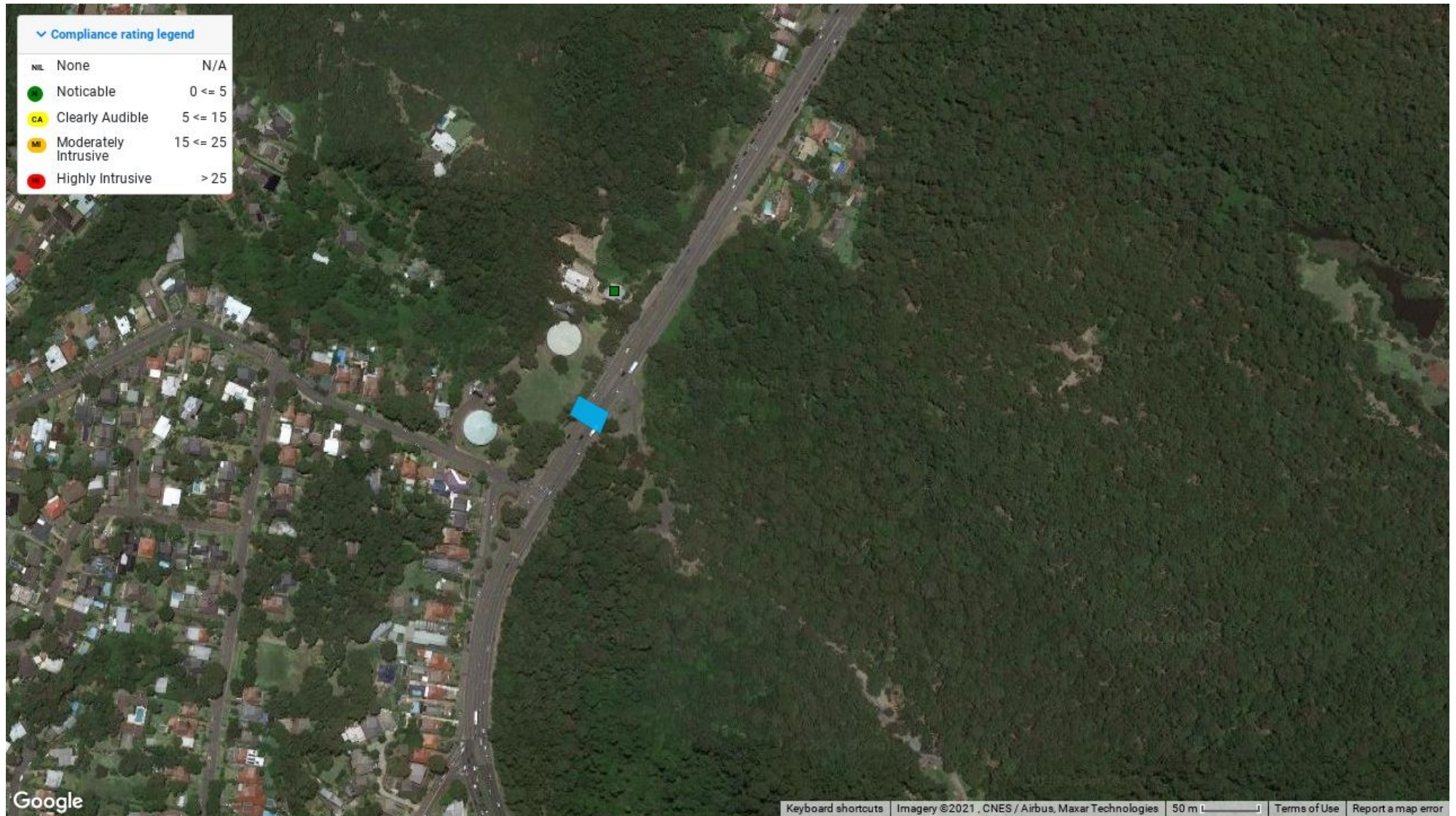
Table 6 Safeguards and controls

Action	Description
Community consultation or notification	<p>Notify the affected community.</p> <p>The notification will detail work activities, dates and hours, impacts and mitigation measures, indication of work schedule over the night time period, any operational noise benefits from the works (where applicable) and contact telephone number.</p> <p>Notification should be a minimum of 7 calendar days prior to the start of works. For projects other than maintenance works more advanced consultation or notification may be required.</p>
Site inductions	<p>All employees, contractors and subcontractors are to receive an environmental induction. The induction would at least include:</p> <ul style="list-style-type: none"> • all project specific and relevant standard noise and vibration mitigation measures • relevant licence and approval conditions • permissible hours of work • any limitations on high noise generating activities • location of nearest sensitive receivers • construction employee parking areas • designated loading/unloading areas and procedures <p>site opening/closing times (including deliveries) environmental incident procedures</p>
Behaviour	<p>No swearing or unnecessary shouting or loud stereos/radios on site.</p> <p>Limit compression braking at night in residential areas.</p> <p>No dropping of materials from height, throwing of metal items and slamming of doors.</p>
Verification	<p>Where indicated in Appendix C, a noise verification program would be undertaken for the duration of the works.</p>
Construction hours	<p>Where feasible and reasonable, construction should be carried out during the standard daytime working hours. Work generating high noise and/or vibration levels should be scheduled during less sensitive time periods.</p>
Respite for out-of-hours works	<p>Respite would be scheduled as indicated in Appendix C and described in the CNVG.</p>
Equipment selection	<p>Use quieter construction methods where feasible and reasonable.</p> <p>Ensure plant including the silencer is well maintained.</p> <p>Plant noise levels will have an operating noise emission level compliant with Appendix F of the CNVG</p>
Use and siting of plant	<p>The offset distance between noisy plant and adjacent sensitive receivers is to be maximised.</p> <p>Plant used intermittently to be throttled down or shut down.</p> <p>Noise-emitting plant to be directed away from sensitive receivers.</p>

Construction noise impact statement

Action	Description
Plan worksites and activities to minimise noise and vibration.	<p>Locate compounds away from sensitive receivers and discourage access from local roads.</p> <p>Plan traffic flow, parking and loading/unloading areas to minimise reversing movements within the site.</p> <p>Where additional activities or plant may only result in a marginal noise increase and speed up works, consider limiting duration of impact by concentrating noisy activities at one location and move to another as quickly as possible.</p> <p>Very noise activities should be scheduled for normal working hours. If the work can not be undertaken during the day, it should be completed before 11:00pm.</p> <p>Where practicable, work should be scheduled to avoid major student examination periods when students are studying for examinations such as before or during Higher School Certificate and at the end of higher education semesters.</p>
Non-tonal reverse alarms	Non-tonal reversing beepers (or an equivalent mechanism) must be fitted and used on all construction vehicles and mobile plant regularly used on site and for any out of hours work.
Shield stationary noise sources such as pumps, generators, and compressors	These should be enclosed or shielded where reasonable and feasible.
Implement any project specific mitigation measures	
1	Works will only be minor and take a couple of hours to complete.
2	No noisy works to be completed.
3	Trucks not to be left idling when parked up.

Appendix A Project location and predicted level of impact



Appendix B Proposed activities and equipment

LV Disconnection

Equipment	Quantity	Usage	Reduction	SWL
Ute	1	20 %	3	75
Truck (10 tonne)	1	20 %	3	90

Activity Sound Power Level: 90

Appendix C Detailed noise predicted for each receiver and activity

Assessment: 005 - Ausgrid Outage - Blackbutt Reserve				Night	Results summary		
NCA	ID	Address	Land use	NML	Cumulative Predicted LAeq, 15 minute noise level	Exceedance of NML, dB	Impact classification
	532652	136 LOOKOUT ROAD NEW LAMBTON HEIGHTS	RES	38	38	0	Noticable