

MANAGEMENT PLAN

Noise Management Plan

MAC-ENC-MTP-032



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Key Contact: Superintendent Environment

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1 Preface

Hunter Valley Energy Coal Pty Ltd (HVEC) operates the Mt Arthur Coal Mine Complex (MAC) which consists of approved open cut mining operation, a rail loop and associated rail loading facilities, in accordance with the Mt Arthur Coal Open Project Approval (09_0062 MOD 3) dated 22 September 2025 (Project Approval), and Environment Protection Licence No. 11457 (EPL). The operations are located in the Upper Hunter Valley, NSW, approximately five kilometres south-west of Muswellbrook.

Extraction of coal requires the clearing of land and excavation of overburden material to recover coal using heavy earth moving equipment. Coal preparation, handling and loading is undertaken at the centralised Mt Arthur Coal Mine Coal Handling and Preparation Plant (CHPP). Export coal is loaded onto trains via the rail loading facility. All of these activities generate noise, which has the potential to impact local stakeholders.

A full project description, including baseline data, history of operations, current operating philosophy and mining methods is provided in the Mt Arthur Coal Consolidation Project Environmental Assessment (EA) (Hansen Bailey, 2009), Mt Arthur Coal Open Cut Modification EA (Resource Strategies, 2013), and Mt Arthur Coal Mine Modification 2 Modification Report (HVEC, 2023).

2 Legislation, Standards and Regulations

2.1 Relevant Legislation and Regulations

Key legislation applicable to environmental management at MAC include but are not limited to:

- Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act);
- Protection of the Environment Operations Act 1997 (NSW) (PoEO Act);
- Noise Policy for Industry (EPA, 2017) (NPfl).

Key statutory approvals associated with environmental management are:

- Mt Arthur Coal Mine Open Cut Consolidation Project Modification 3 (PA 09_0062 MOD 3) (the Project Approval); and
- Environmental Protection Licence 11457 (EPL).

A list of the relevant conditions of the Project Approval and where they are addressed in this Noise Management Plan (NMP) is found in Appendix 4, Table 4. A list of the relevant conditions of the EPL and where they are addressed in this NMP is found in Appendix 4, Table 5.

The Project Approval and subsequent modifications were assessed under the Environmental Planning and INSERT Assessment Act 1979 (NSW). The Protection of the Environment Operations Act 1997 (NSW) is the principal piece of legislation regulating the EPL and pollution emissions in NSW.

In accordance with the Project Approval, Mt Arthur Coal will implement best practice noise management, which includes implementing all reasonable and feasible noise mitigation measures to minimise the operational, road and rail noise of the Mt Arthur Coal Mine Complex.

2.2 Baseline Data

To set noise criteria residences were grouped into Receiver Zones A to H where is it considered the Rating Background Level (RBL) and existing industrial noise are consistent across the zone as shown in Table 1. The zones are shown in Appendix 2 (as per Project Approval Appendix 4). In accordance with the Mt Arthur Coal Open Cut Modification EA (2013), the existing RBLs were used in conjunction with noise surveys to calculate the operational noise impact assessment criteria as listed in Table 2 (Section 2.3).

Table 1 Baseline Data from EIS (EA, 2013)

Location	Day (RBL (dBA))	Evening (RBL (dBA))	Night (RBL (dBA))
A – Antiene Estate	32	35	33
B – Skelletar Stock Route, Thomas Mitchell Drive, Denman Road (East)	34	33	32
C – Racecourse Road	36	35	34

Location	Day (RBL (dBA))	Evening (RBL (dBA))	Night (RBL (dBA))
D – Denman Road (North-west), Roxburgh Vineyard (North-east), Roxburgh Road (North-east)	32	31	30
E – South Muswellbrook	34	34	34
F – Denman Road (West), Roxburgh Vineyard (West), Mangoola Road	32	31	30
G – East Antiene, New England Highway	36	35	34
H – South of Mine	30	30	30

2.3 Noise Impact Assessment Criteria

Mt Arthur Coal will ensure noise generated by the project meets the criteria listed in Table 2 at any residence on privately owned land, except where exceedances were predicted in the EA. The attended monitoring locations are provided in Appendix 1.

Table 2 Noise Impact Assessment Criteria dB(A)

Location	Site No	Day (LAeq(15min))	Evening (LAeq(15min))	Night (LAeq(15min))	Night (LA1(1min))
A – Antiene Estate	NP04	37	40	38	45
B – Skelletar Stock Route, Thomas Mitchell Drive, Denman Road (East)	NP16	39	38	37	45
C – Racecourse Road	NP07	41	40	39	45
D – Denman Road North-west, Roxburgh Vineyard (North-east), Roxburgh Road (North-east)	NP14	37	36	35	45
E – South Muswellbrook	NP10	39	39	39	45
F – Denman Road West, Roxburgh Vineyard (West), Mangoola Road	NP15	37	36	35	45
G – East Antiene, New England Highway	NP12	41	40	39	45
H – South of Mine	NP13	35	35	35	45

Note: Noise generated by the project is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW NPfl.

2.4 Relevant Standards and Guidelines

Mt Arthur Coal has well-established management systems that are aligned with the international management system standards ISO 14001 and ISO 45001. These management systems provide the systems and processes to support the planning, implementation, monitoring and review to achieve continual improvement in noise management. To minimise the impacts of Mt Arthur Coal activities a Noise Management System has been established, which includes mechanisms for predictive forecasting and real-time noise monitoring, providing feedback on the effectiveness of controls and enabling adaptive noise management.

Mt Arthur Coal implements a comprehensive risk management system. Noise related risks and their associated control measures are documented in the MAC Environment Risk Register and summarised in Section 8 of this NMP.

3 References

3.1 External Documents

- NSW Environmental Protection Authority Environmental Protection Licence (EPL) 11457.
- Mt Arthur Coal Project Approval (09_0062) MOD3, dated 22 September 2025 (Project Approval).
- Hansen Bailey (2009), Mt Arthur Coal Consolidation Project Environmental Assessment. Prepared for Hunter Valley Energy Coal Pty Ltd.
- URS Australia Pty Limited (2000) The Mt Arthur North Coal Project, Environmental Impact Statement. Prepared for Coal Operations Australia Limited.
- Hunter Valley Energy Coal (2023), Mt Arthur Coal Mine Modification 2 Modification Report (Modification Report).
- RWDI (2023), Mt Arthur MOD 2 Noise and Blasting Report.

3.2 Mt Arthur Coal Internal Documents

- MAC-ENC-MTP-041 Environmental Management Strategy
- MAC-ENC-MTP-015 Blast Management Plan
- MAC-ENC-PRO-056 Noise Management Procedure
- NEC-STE-PRO-030 Management of Change Procedure
- MAC-STE-STD-238 Risk Management Standard
- MAC-ENC-REG-001 Environmental Risk Register
- MAC-ENC-PRO-042 Community Complaints Handling, Response and Reporting Procedure

3.3 Glossary

Term	Definition
dBA	A unit of measurement for the relative loudness of sounds as perceived by the Human ear.
LA(N)	An A-weighted noise level exceeded for N% of a given measurement period is denoted as an LAN of that level. LA1 is the noise level exceeded for 1% of the time, LA10 the noise exceeded for 10% of the time, and so on. LA90 is a commonly used measure of the average minimum or background A-weighted noise level
LA1,1minute	The noise level which is exceeded for 1 per cent of the specified time period of 1 minute
LAeq (period)	The time-averaged sound pressure level. The value of the A-weighted sound pressure level of a continuous steady sound that, with a measurement time interval T, has the same mean square sound pressure level as a sound under consideration with a level that varies with time (AS1055.1-1997).
LAmix	The maximum sound pressure level of an event measured with a sound level meter satisfying AS IEC 61672.1-2004 set to A' frequency weighting and fast time weighting.
LA90	The noise level exceeded for 90% of the sample period (the background noise level).
Day	The period from 7am to 6pm (Monday to Saturday) and 8am to 6pm (Sunday and public holidays)
Evening	Refers to the period from 6 pm to 10 pm
Night	The period from 10 pm to 7 am (Monday to Saturday), and 10 pm to 8 am (Sundays and public holidays).

4 Purpose

The purpose of this NMP is to provide an overview of, and direction to the systems, processes and documentation that have been established to:

- Ensure compliance with operating conditions of all relevant statutory approvals;
- Manage the impact of noise from mining operations on the environment and nearby residences;
- Facilitate the effective planning, implementation and monitoring to minimise noise generating activities at Mt Arthur Coal; and
- Maintain an effective response mechanism to deal with exceedances and complaints.

5 Scope

5.1 Included

The scope of this NMP applies to all activities at Mt Arthur Coal or companies contracted to undertake activities on its behalf; including mining, handling, transport and processing that have the potential to impact on the immediate and surrounding receiving environment.

5.2 Excluded

The noise impacts of blasting are managed via the Blast Management Plan (MAC-ENC-MTP-015) and therefore the management of noise impacts from blasting activities have not been included in this Plan.

6 Consultation and Communication

This NMP has been prepared in consultation with the Department of Planning, Housing, and Infrastructure (DPHI). In addition to this, Mt Arthur Coal has extensive consultation and communication processes, including:

- A comprehensive community engagement program which occurs quarterly and includes a Community Consultative Committee (CCC);
- Meetings via the Upper Hunter Mining Dialogue for co-ordination of noise management at Mt Arthur Coal with other participating members to discuss and minimise, where possible, cumulative noise impacts;
- Quarterly meetings with relevant mines (defined by Approval) will be held to discuss cumulative impacts and how they will be managed. This meeting is held to discuss improvements, recommendations, arising issues and potential cumulative impacts on the community;
- Ongoing consultation with relevant government agencies in line with Schedule 5 Condition 4 of PA09_0062 MOD3;
- A Community Response Line (1800 882 044) which enables members of the community to consult and communicate with environment and community staff directly to discuss concerns as they arise; and
- Project approvals, Management Plans, monitoring results, Annual Reviews and other related documentation (complaints register, CCC minutes etc.) are available via the BHP website <https://www.bhp.com/environment/regulatory-information>.

7 Roles and Responsibilities

The maintenance and update of this NMP is the responsibility of the Environment Superintendent. Implementation of operational controls is the responsibility of the Open Cut Examiners (OCE) and Supervisors. Conducting Sound Power Testing and maintenance of sound suppression on mobile fleet is the responsibility of the Maintenance Superintendent, completion of annual the responsibility of the Environment Superintendent and the Mining Engineering Manager.

Acting on model results is the responsibility of the Short-Term Planning Superintendent. All employees at Mt Arthur Coal share the responsibility of maintaining the Licence to Operate which includes the management of noise impacts and are required to implement controls as required.

8 Risk Management

MAC implements a comprehensive risk management system as documented in the Risk Management Standard (MAC-STE-STD-238). Identified noise risks and their associated control measures are documented in the Environmental Risk Register (MAC-ENC-REG-001). Operational and project related changes that have the potential to materially alter the risk profile are managed through the Management of Change Procedure (NEC-STE-PRO-030).

9 Best Practice Noise Management

Mt Arthur Coal implements best practice noise management to ensure the criteria in Table 2 is met. This involves a holistic approach using preventative and proactive actions, noise suppression, periodic modelling and noise monitoring. These all inform the overall performance and provide opportunities for improvement.

Best practice noise management for Mt Arthur Coal starts with engineering controls that control the noise at the source. Examples of these include noise bunding and installation/maintenance of sound suppression on the mobile fleet. Annual and three yearly noise modelling is carried out to predict impacts and inform proactive and mitigating controls of noise emissions from Mt Arthur Coal. These modelling results are provided to the mine planning team to arrange alternate haul routes and dumping strategies, see Section 10.1.1. Forecasting tools provide operational staff with data to inform changes as required on a proactive 24hrly basis, see Section 10.1.2. Lastly, noise monitoring provides the ability to make reactive changes to operations and control noise where required. Compliance monitoring is completed monthly (Section 11.1.2) and operational control monitoring (Section 11.1.1), is done on a continuous real time basis. All monitoring informs the functionality of the Noise Trigger Action Response Plan (TARP), as provided in Appendix 3. The Annual Review describes the outcomes from the noise management, modelling and measurement through the year.

Best practice noise management at Mt Arthur Coal is driven by a continuous improvement feedback loop incorporating outcomes and learnings from processes outlined above. This ensures Mt Arthur Coal maintains compliance to the Project Approval and ensures all reasonable and feasible measures are always implemented.

10 Control Measures

This NMP includes proactive and reactive control measures designed to minimise the generation of noise from mining activities. Mt Arthur Coal has adopted the following from the NSW NPfI:

- Controlling noise at the source – Includes implementing best management practices and reasonable and feasible measures as well as the implementation of a reactive TARP if operational control noise monitoring detects levels that are exceeding the criteria listed in Table 2.
- Controlling the transmission of noise – Includes the use of barriers and land-use controls—which attenuate noise by increasing the distance between source and receiver.
- Controlling noise at the receiver – Examples of controlling noise at the noise-sensitive receiver include installation of double-glazing windows or insulation.

These noise mitigation strategies follow the hierarchy of control, with source control always being the preferred option where reasonable and feasible, and control at the receiver the least favourable option.

10.1 Controlling Noise at the Source

The following strategies will be considered in combination or in isolation to ensure that noise generated by the Project does not cause exceedances of the criteria listed in Table 2.

10.1.1 Mobile plant

The Mt Arthur Coal sound power targets define requirements for new and in-service mobile plant equipment, including all contractor mobile plant, and provide a basis for predictive noise modelling to limit the risk of non-compliance at off-site receivers. These targets are set to ensure compliance to the statutory requirements and criteria in Table 2 and to ensure predictions in the EA are achieved. Monitoring and management of mobile plant will be conducted using best practice, this involves the installation of noise suppression on mobile plant. Modelling is used to demonstrate that the implementation of this control is effective and compliance to the criteria in Table 2 is achieved. Best practice noise suppression is supported by predictive modelling processes incorporating sound power testing data from a sample of the fleet or as approved by the risk owner, in conjunction with an operational risk assessment to maintain ongoing compliance at off-site receivers.

A variety of mitigation measures are available to operations to use in isolation or in combination to further mitigate noise impacts related to the mine plan and operating conditions.

Planning controls are proactive and ensure that there is preventative measures in place before noise emissions occur, production controls are in place to ensure that noise is controlled in adverse meteorological conditions or when elevated noise levels are detected. These controls involve:

- Procurement of noise attenuated vehicles for critical haul routes
- Modified alignment of haul routes for day and night scenarios
- Dumping of overburden in less sensitive locations during night-time
- Using day-time overburden placement to increase barrier heights in the vicinity of the night-time dumping locations
- Use of bulldozers on overburden emplacements in less-noise sensitive locations during the night-time.

These controls are implemented when triggered by annual modelling results and daily forecasting results. Mine Planning are responsible for ensure controls such as development of day and night-time dumps are in place, whereas operational personnel are responsible for directing and implementing controls such as using bulldozers in less sensitive areas in response to forecasting results.

10.1.2 Noise forecasting

Mt Arthur Coal uses a proactive noise risk forecast tool to predict noise emissions and risk for sensitive receptors. The tool used to inform operations for the next 24 hours by providing an assessment of risk for each pit on the potential for elevated noise levels at offsite receptors.

The Noise Risk Forecast is issued via email to all relevant operational personnel daily. Inputs into the forecasting model includes:

- Predicted meteorological conditions;
- Sensitive receptor locations;
- Haul configurations; and
- Mine planning data such as pit contours and dump locations.

Should elevated noise levels be predicted, relevant operational personnel will review and consider controls to be executed. This tool is used to ensure noise emissions are managed throughout periods of noise enhancing meteorological conditions and is used to inform pre-starts when noise risk is at its highest. For high-risk periods and locations, preparatory actions prior to shift may include:

- Communicate potential noise impact to site stakeholders;
- Ensuring that day and night dumps are planned to be utilised as needed;
- Re-prioritise work by performing noisier tasks during periods of low risk; and
- Reducing activity on the night of the high-risk period in the impacted areas;

The integrated use of predictive meteorological forecasting and real-time operational noise monitoring outlined in Section 11.1.1, and the implementation of both proactive and reactive noise mitigation measures forms part of Mt Arthur Coal's Noise Management System. The forecasting system is updated annually to ensure the most current information is made available to maintain best practice noise management. The use of this tool is implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria.

10.1.3 Trigger Action Response Plan

The Trigger Action Response Plan (TARP) is the process to be followed by Supervisors and/or OCEs where there are unpredicted noise impacts. The Mt Arthur Coal real time monitoring system provides alarms to site personnel if noise levels are approaching regulatory limits as defined in Table 2. They must determine if noise is mining related, review and change operations if mining noise is an issue and confirm success of change or take further action until situation is satisfactory.

The TARP is included within Appendix 3. The TARP is facilitated real-time whereby a dashboard presents a visual map with real-time updates of logged LAeq and/or LA90 levels at unattended directional loggers situated around the mine (see Section 11.1.1). The TARP facilitates the reasonable modification of mining activity to mitigate intrusive noise emissions from MAC mining activities to avoid exceedances of the criteria in Table 2 and comply with the relevant statutory requirements.

Real-time unattended noise monitoring as per Alert Level 2 (Appendix 3) is a cumulative indication and assessment that may include background noise and Mt Arthur Coal's Contribution. To determine Mt Arthur Coal's contribution, operational personnel listen to real-time audio or inspect (if required) the relevant noise monitoring locations to verify contributions.

If, between 10.00pm and 7:00am (Monday to Saturday), and 10 pm to 8 am (Sundays and public holidays), Mt Arthur Coal directional low-pass (LP) LAeq (15 minute) or LA90 exceeds a Noise Alert Thresholds outlined in the Noise Management Procedure (MAC-ENC-PRO-056) for any two consecutive 15-minute periods at any location, alerts are sent to MAC Dispatch. MAC Dispatch are required to contact the OCE to advise them of the alert. Following this, the OCEs are required to activate the Noise TARP. Actions to mitigate the generation of noise are included in the TARP and a record of response will be kept. Alarms will not be generated when wind speed is above 5 metres per second (m/s) or during periods of rainfall, as the environmental noise levels will not be representative.

In the event a real time monitor or monitoring system experiences technical issues, the Noise TARP can be replaced with a manual inspection regime. This process is activated via notification to the relevant stakeholders when required to ensure the intent of the TARP is achieved and reasonable and feasible controls are in place.

10.1.4 Fixed infrastructure

The Mt Arthur Coal maintenance workshops and associated infrastructure were strategically located to minimise impacts to sensitive receivers. Design of the CHPP incorporates extensive cladding of bins, crushers, conveyors and the washery. Low noise conveyors are specified throughout.

10.2 Controlling Noise Transmission

A major noise barrier scheme has been implemented at Mt Arthur Coal since the project inception. The primary barriers are listed below:

- A 40-metre-high bund adjacent the washery to control noise from the CHPP infrastructure and run of mine (ROM);
- A 4.2-kilometre-long bund to reduce pit activity noise in the direction of Muswellbrook; and
- Noise fencing has been installed and will be maintained along the rail spur to reduce noise transmission in the Antiene area.

10.3 Controlling Noise at the Receiver

This is the least preferred control option and is applied when all other methods of noise control have been evaluated and implemented with further improvements required for the receiver. This would be undertaken on an as needs basis and may include noise mitigation measures such as double glazing, air conditioning, or insulation.

Stakeholder engagement and a risk assessment on a case-by-case basis will determine the level of noise control applied. Upon receiving a written request for acquisition from an owner of the land listed in Table 1 (Land subject to acquisition upon request) and/or on the land listed in Table 4 (Land subject to additional noise mitigation upon request) of Project Approval 09_0062. Mt Arthur Coal shall acquire the land in accordance with Schedule 3 (Conditions 1 and 7) and Schedule 4 (Conditions 7 and 8). List of receiver IDs is provided on Appendix 4.

11 Noise Monitoring Program

The Mt Arthur Coal noise monitoring program outlined in this NMP has been designed to ensure that adequate monitoring is undertaken to confirm compliance with Schedule 3, Conditions 2 to 9 of the Project Approval and Condition L5 of EPL 11457. The program specifies monitoring requirements and provides guidelines on data analysis and reporting.

The Sections below detail the noise monitoring methodology, monitoring locations, frequency and assessment criteria.

11.1 Monitoring Methodology

All monitoring shall be conducted in accordance with NSW NPfl guidelines and Australian Standard AS 1055 'Acoustics, Description and Measurement of Environmental Noise'.

Type 1 (for attended monitoring), Type 2 or equivalent equipment, as defined in Australian Standard AS 1259.2 'Acoustics - Sound level meters - Integrating - Averaging', will be used for all unattended and attended monitoring.

11.1.1 Unattended Monitoring Method

Compliance with relevant noise criteria cannot be determined with certainty through unattended noise monitoring. Attended monitoring is required to assess the compliance of Mt Arthur Coal with noise limits.

Mt Arthur Coal uses a combination of directional noise monitors (barnowl and noise compass). Estimation of Mt Arthur Coal mining noise levels are derived from the set of noise results from each monitor that most accurately represent the mining noise level but also provide a reasonable amount of filtering for non-mining noise sources. Adjustments may include:

- Changes to directional angles to remove non-mine noise sources;
- Changes to LP filtering cut off frequencies;
- Manually remove noise results based on listening to audio streams or recorded audio and determining that a non-mine source primarily contributed to the noise result. This manual intervention will be logged
- Allow alarms to be triggered from LAeq or LA90.

Continuous noise measurement is undertaken for management purposes only, using directional noise loggers capable of providing noise data to 630 Hertz (Hz) and/or 1000 Hz which are strategically positioned around the mine and log in regular intervals. The real time directional noise monitoring locations monitor noise levels and the direction of that noise relative to the monitor. Calibration of unattended equipment will take place in line with the manufacturer's recommendations.

Directional LP LAeq and LA90 for Mt Arthur Coal is logged. Mt Arthur Coal Directional LP LAeq and LA90 results are the sum of directional values within an included angle that encompasses Mt Arthur Coal mining areas relevant for each monitoring location.

11.1.2 Attended Monitoring Method

Mt Arthur Coal undertakes monthly attended noise monitoring in accordance with Appendix 10 of PA 09_0062 and EPL11457. This monitoring is used to ensure compliance with the relevant conditions of the Approval and EPL and is undertaken by an independent third-party consultant. The independent third-party consultant will not notify Mt Arthur Coal prior to conducting monthly noise monitoring but shall endeavour to schedule noise monitoring when meteorological forecasts indicate that noise criteria will be applicable.

The monthly attended noise monitoring comprises one night measurement at each location with the duration of each measurement 15 minutes. Received levels from various noise sources must be noted during attended monitoring and particular attention paid to the extent of Mt Arthur Coal's contribution, if any. At each receptor location Mt Arthur Coal's LAeq (15 minute) and LA1 (1 minute) (in the absence of any other noise) is measured directly, where possible. This is determined by a combination of frequency analysis and calculations that are based on number of events (of known level) and duration. This monitoring is carried out at least once a month (but at least two weeks apart) unless the Secretary directs otherwise.

The following information is recorded during attended monitoring:

- Time and date;
- Location;
- Name of person carrying out the monitoring;
- Serial number of the equipment used;
- Noted sources and noise levels. Direction and frequency from source of interest;
- Duration of monitoring;
- Measured noise levels including LAeq, LAmx, LAmin, LA1, LA10, LA50 and LA90; and
- Weather conditions including temperature, relative humidity, wind speed average and maximum, wind direction and estimated cloud cover.

11.2 Meteorological Monitoring

Real-time data from on-site Automatic Weather Station (AWS) is made available to the OCE to assist in operational monitoring and real time response. Additional AWS are situated around the mining operations area which provides representative weather data for the surrounding privately owned residential areas, if the onsite AWS data is unavailable, data from the additional sites will be used. The AWS measures wind speed, wind direction, temperature and sigma theta.

Weather data from the AWS will be used to determine the validity of noise monitoring results in accordance with the Noise Policy for Industry, wind speed and rain data will be used for this purpose. Extreme temperature inversions will be considered G-class inversions, as determined by:

- Direct measurement of temperature differential between the WS09 (on-site AWS) and the WS10 (Wellbrook AWS) which have an elevation differential of approximately 100m, suitable for inversion monitoring;
- If WS09 & WS10 are not available, the use of sigma theta and wind speed will be used to categorise inversion strength.

11.3 Monitoring Locations

Attended monitoring locations are as detailed in Table 3. They are in each residential assessment zone specified in the EA and Project Approval 09_0062 MOD3 (see Appendix 2).

Table 3 Residential Assessment Zones

Site No	Location	Type	Coordinates	Requirement	Purpose
NP04	Balmoral Road	Attended	E. 304294 N. 6422155	Statutory	Determine noise levels east of operation (Zone A - Antiene Estate)
NP07	Racecourse	Attended	E. 299143 N. 6426488	Statutory	Determine noise levels north to north-east of operation (Zone C – Racecourse Road)
NP10	South-Muswellbrook	Attended	E. 301612 N. 6425953	Statutory	Determine noise levels north-east of operation (Zone E – South Muswellbrook)
NP12	Pamger Drive	Attended	E. 305541 N. 6422262	Statutory	Determine noise levels east of operation (Zone G – East Antiene)
NP13	Golden Highway	Attended	E. 292388 N. 6409169	Statutory	Determine noise levels south of the operation (Zone H – South of Mine)
NP14	Roxburgh Road	Attended	E. 289081 N. 6423155	Statutory	Determine noise levels east of operation (Zone D – Roxburgh Rd)
NP15	Wellbrook	Attended	E. 290263 N. 6421839	Statutory	Determine noise levels east of operation (Zone D - /F – Denman Road West)
NP16	Skelleter North	Attended	E. 300242 N. 6426694	Statutory	Determine noise levels north-east of operation (Zone B – Skelleter Stock Route,)

A map of these monitoring locations is included in Appendix 1.

Below are some specific characteristics of mining noise relevant to Mt Arthur Coal:

- Mining noise is typically inaudible during the day period, particularly once the ground heats up (daytime is usually a compliance period);
- Received levels of mining noise usually varies greatly from one night to the next at any receptor location;

- Different meteorological conditions from one night to the next are the primary cause of different received levels at receptors (received levels vary substantially because of different weather conditions, not because of changes to operations);
- Mining noise from a large open cut operation, received at a receptor, is typically a continuum with minor event noises that are usually not very emergent (a constant low frequency noise);
- The received mining noise spectrum generally does not have any significant content (if any) above 1000 Hz; and
- Other noise sources at a receptor location can often be considerably louder than received mining noise. This is particularly true for noise events (dogs, cows, cars etc.), which influence the total LAeq. Consequently, LP LAeq can be used to measure mining noise more accurately.

Table 4 outlines noise mitigation measures and controls; that are implemented as determined by the source, who implements the controls and how often controls are implemented. These controls still apply in the event that adverse meteorological conditions are present, causing the criteria to not apply, ensuring all reasonable and feasible control measures are in place.

Table 4 Noise Mitigation Measures

Source	Noise Mitigation Measures	Responsibility	Timing
Open cut mining using excavators, and haul trucks	<ul style="list-style-type: none"> • Planning and implementation of day and night dumps to avoid operating in exposed areas in high-risk conditions • Maintenance of sound suppression equipment on the fleet • Use of Noise forecasting tool when required on high-risk nights • Activate TARP (Appendix 3) • Modify dumping operations • Modify hauling operations 	<ul style="list-style-type: none"> • Mine Planning • Maintenance • Mining • Mining • Mining • Mining 	As required
Haul road maintenance and other maintenance activities	<ul style="list-style-type: none"> • Modify dozer operations • Modify grader operations 	<ul style="list-style-type: none"> • Mining 	As required
Coal processing and transporting	<ul style="list-style-type: none"> • Noise fencing along rail spur and conveyor corridor. • Maintenance of noise bund 	<ul style="list-style-type: none"> • Processing 	Ongoing
Overburden shaping using dozers	<ul style="list-style-type: none"> • Planning and implementation of day and night dumps to avoid operating in exposed areas in high-risk conditions. • Use of Noise forecasting tool when required on high-risk nights. • Activate TARP (Appendix 3). 	<ul style="list-style-type: none"> • Mine Planning • Mining • Mining 	As required

11.4 Monitoring Frequency

To adequately sample the noise environment, monthly attended monitoring is undertaken as per Schedule 3 Condition 8 (e), this is done in accordance with methods outlined in Section 11.1.2 and Appendix 10 of PA 09_0062. In conjunction with this, continuous unattended monitoring is undertaken as outlined in Section 11.1.1.

Unattended monitoring results will be compared to attended noise monitoring results at the same location to assess the accuracy of unattended monitoring every two years. Attended results from the independent consultant will be evaluated against results from unattended equipment and a comparison will be made to determine the effectiveness of unattended equipment.

11.5 Assessment Criteria

Received levels from various noise sources will be noted during attended monitoring and particular attention will be paid to the extent of the Mt Arthur Coal contribution (if any) to measured levels. For each receiver location, the Mt Arthur Coal's LAeq (15min) and LA1 (1min) (in the absence of any other noise) will be quantified. This would usually be from direct measurement or determined by frequency analysis as outlined in Section 11.1.2 LAeq (15min) will also be determined for all noise sources, except for cases where the LAeq (15min) is non-measurable. LAeq (15min) and LA1(1min) results generated by Mt Arthur Coal will be compared to regulatory limits.

Assessment of impact is to include consideration of mining activity and atmospheric conditions during each measurement. In accordance with Appendix 10 of PA09_0062, the noise criteria in Table 2 of Schedule 3 are to apply under all meteorological conditions except the following:

- (a) During periods of rain or hail
- (b) Average wind speed at microphone height exceeds 5m/s
- (c) Wind speeds greater than 3m/s measured at 10m above ground level
- (d) Temperature inversions greater than 3°C/100m, or alternatively stability class F and G.

12 Response and Reporting Procedures

12.1 Incidents

An incident is defined as 'an occurrence of set of circumstances that causes or threatens to cause material harm to the environment and as a consequence of that environmental harm, may cause harm to the health and safety of human beings, and which may or may not be or cause a non-compliance'.

An incident will be determined in accordance with Section 5.5 and Appendix 2 of the Environmental Management Strategy (MAC-ENC-MTP-041).

Additionally, in line with this NMP, a noise incident is defined as an exceedance of the noise contribution from Mt Arthur Coal mining activities in line with Schedule 3 Condition 2 at an allocated attended monitoring location. An exceedance is considered to have occurred during the monthly attended compliance monitoring after the Level 3 TARP is triggered and the remeasure after 75 minutes exceeds the criteria in Table 2 under the applicable meteorological conditions, as specified in the Appendix 10 of PA09_0062 MOD3. In cases where the remeasure is invalid due to unfavourable meteorological conditions, a follow-up remeasure will be completed on a subsequent night.

In the event a Level 3 TARP is triggered the independent consultant will:

1. Contact MAC personnel and inform them of the initial exceedance.
2. Conduct a remeasure within 75 minutes of the initial exceedance. In this time MAC personnel have the responsibility to address noise issues regardless of meteorological conditions.
3. Contact MAC personnel and inform them of the result of the remeasure.
4. Review the meteorological data and confirm the applicability of the criteria based on Appendix 10 of PA09_0062 during the remeasure.
5. Contact MAC Environment team and notify them of the results

An investigation will be conducted to determine the cause of the incident, and the monitoring result will be validated. Subject Matter Experts may be engaged to provide expert analysis and interpretation of results as part of an investigation into an exceedance of the criteria.

Mt Arthur Coal will notify and report incidents in accordance with Schedule 5 Conditions 7 and 7A.

Additionally, an incident or hazard will be recorded in the site incident management system, this record will have an appointed Owner and Reviewer to ensure appropriate internal stakeholders are notified of the incident and investigations are undertaken as required.

Mt Arthur Coal will notify the EPA in the event of an exceedance of the relevant licence noise limits and follow further reporting requirements as required.

12.2 Non-Compliances

A non-compliance is defined as 'an occurrence, set of circumstances or development that is a breach of [the] consent'.

Any occurrence, set of circumstances or development that indicates a potential non-compliance will be investigated upon identification prior to final determination.

Non-compliances will be determined in line with Section 5.5 and Appendix 2 of the Environmental Management Strategy (MAC-ENC-MTP-041).

Mt Arthur Coal will notify and report non-compliances in accordance with Schedule 5 Condition 7B.

12.3 Complaint Handling

All complaints received regarding noise impacts will be responded to in accordance with Mt Arthur Coal Community Complaints Handling, Response and Reporting procedure (MAC-ENC-PRO-042). Upon receipt of a complaint, preliminary investigations will commence to determine the likely causes of the complaint using information such as the prevailing climatic conditions, the nature of activities taking place, recent monitoring results and a review of the reasonable and feasible measures that were in place. A response will be provided as soon as practicable, which may include the provision of relevant monitoring data if requested. Every effort will be made to ensure that concerns are addressed in a manner that facilitates a mutually acceptable outcome for both the complainant and Mt Arthur Coal.

Mt Arthur Coal records all community complaints in the site event management database and publishes these on the BHP Mt website - <https://www.bhp.com/environment/regulatory-information>.

12.4 Performance Improvement

Mt Arthur Coal will evaluate best practice new technology and alternative operating methods, as they become known. Those found to be reasonable, feasible and effective in noise control, that do not impose undue safety or economic constraints, will be implemented. Particular attention will be paid to mobile plant noise control, primarily regarding trucks and dozers. These are the major site noise sources and currently represent the area of most development by equipment manufacturers. Noise monitoring and sound power testing results will be evaluated on an ongoing basis to clearly ascertain Mt Arthur Coals current performance and, the extent of improvement that may be required. Additionally, an annual noise model will be prepared when detailed mine planning for the coming winter months has been completed, to predict likely levels in the surrounding environment. This allows any potential impacts to be addressed in advance of this mining taking place.

13 Review and Ongoing Reporting

13.1 Review

This NMP will be reviewed and evaluated to assess its adequacy and effectiveness, to the satisfaction of the Secretary (in consultation with relevant government agencies) in accordance with Condition 4 of Schedule 5 of the Project Approval which requires this be done within 3 months of:

- (a) submission of the annual review;
- (b) submission of an incident report;
- (c) submission of an audit; and
- (d) any modifications to the conditions of this consent.

If necessary, this NMP will be revised to incorporate any recommended measures to improve the environmental performance of Mt Arthur Coal resulting from audits, incident investigation findings and community complaints. In addition, the review process will include ongoing evaluation of operational modifications, alternative methodologies and new technologies that become available for their potential to lessen noise impacts.

13.2 Annual Review

Mt Arthur Coal will report on the effectiveness of the NMP annually in the MAC Annual Review this will include:

- (a) Reporting of noise monitoring results, evaluating and comparing against impact assessment criteria;
- (b) Noise related complaints and associated management/mitigation measures;

- (c) Exceedances of the performance criteria and follow up management/mitigation measures undertaken in the event of any confirmed exceedance of performance criteria to rectify and avoid recurrence; and
- (d) Review of the effectiveness of management/mitigation measures and the monitoring program.

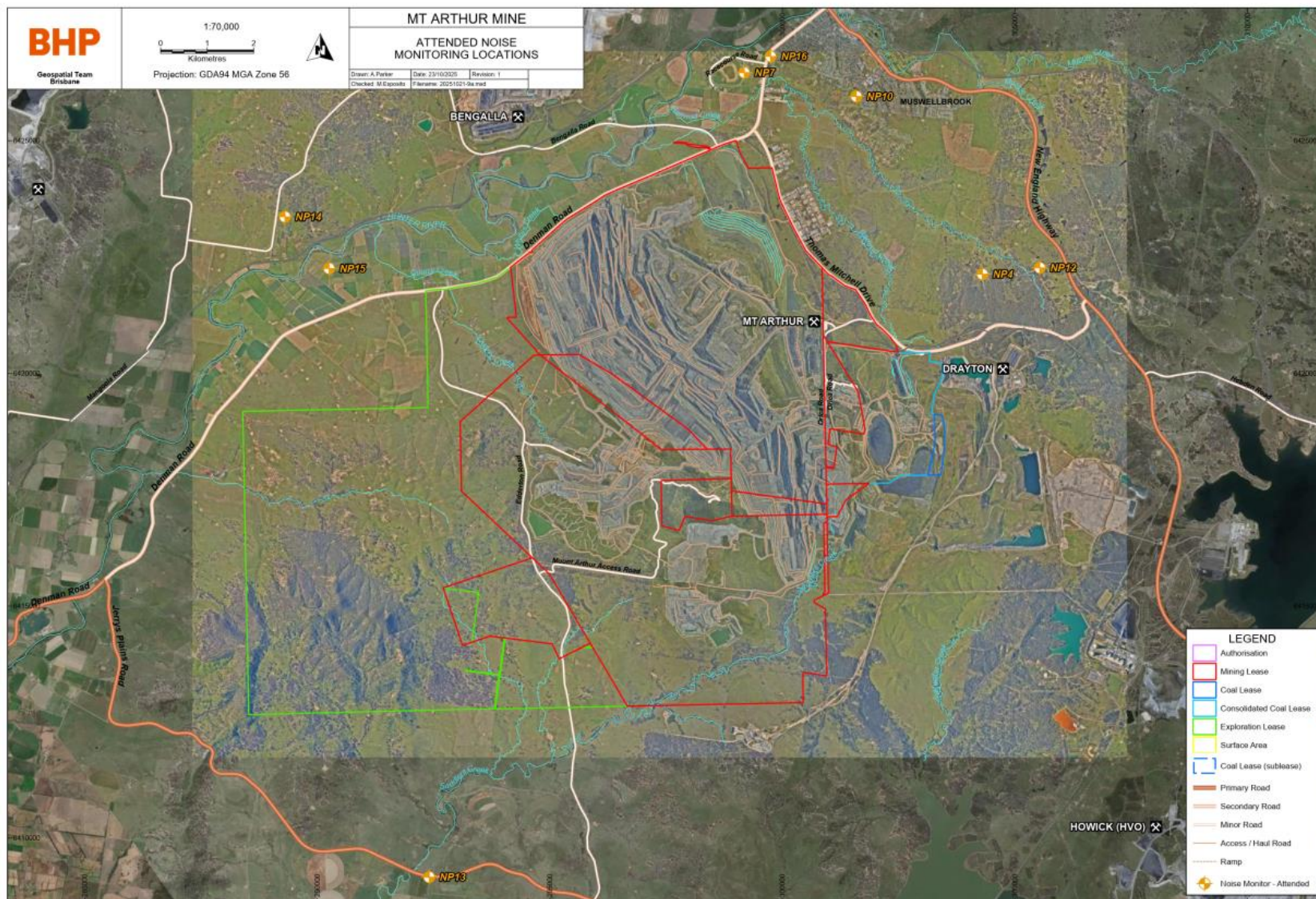
Mt Arthur Coal will provide regular reports on the environmental performance based on the monthly attended noise monitoring results. The report will be available on the BHP Mt Arthur Coal website (<https://www.bhp.com/environment/regulatory-information>) within 14 days of receiving final environmental monitoring data required.

14 Version History

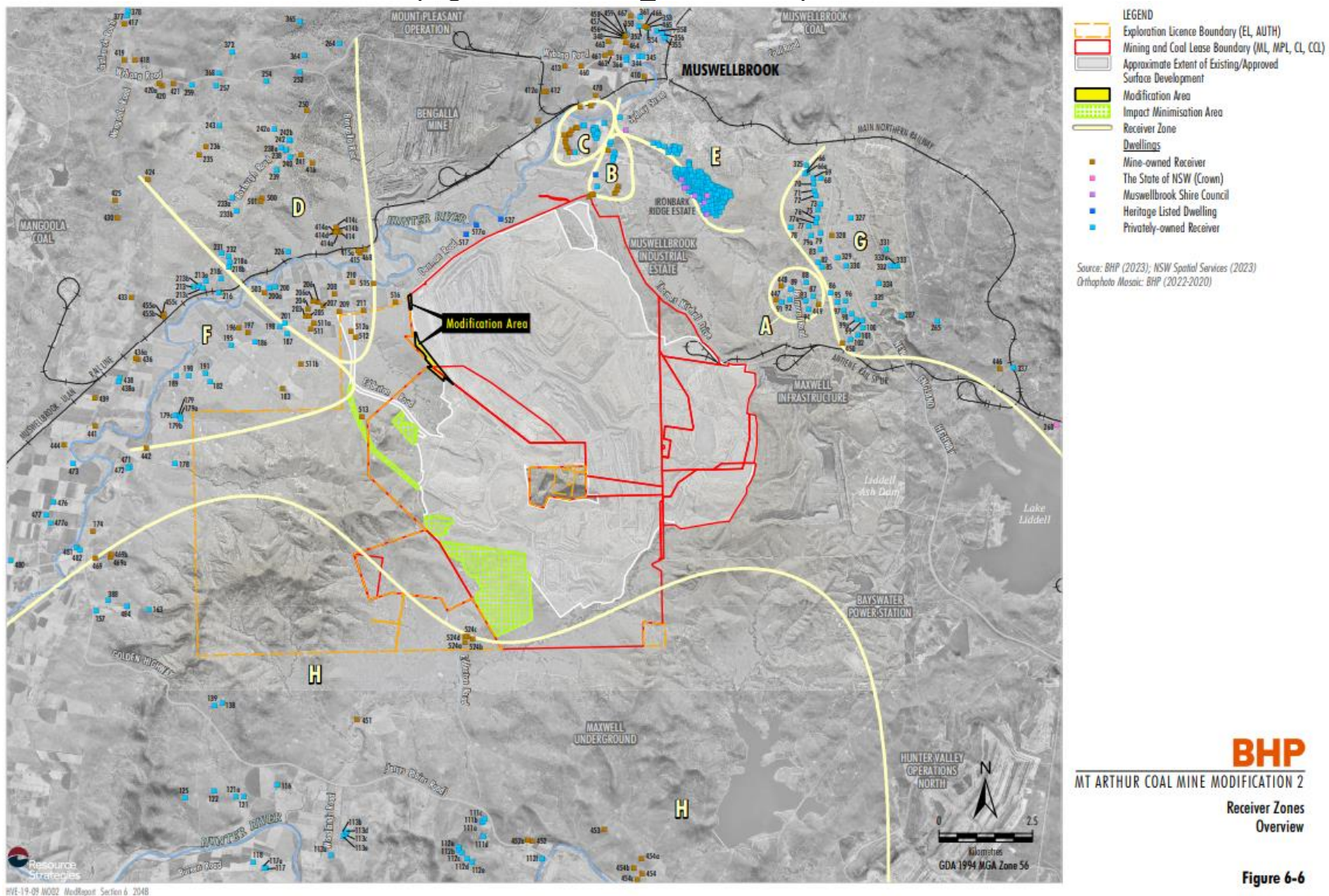
- Note:**
- **Major** versions (1.0, 2.0 etc.) are for changes after a significant event / incident or for a periodic review of the document.
 - **Minor** versions (1.1, 1.2 etc.) are for small changes to a page or pages within a document.

Date	Version Control		Page(s)	Details
	Major	Minor		
30/03/2012		1.2	All	Draft provided to DP&I incorporating DP&I comments.
19/4/2012		1.3	All	Exceedance protocol for unattended noise monitoring removed. Commitment added to publish attended noise monitoring results on website, replacing commitment to publish analysed results every 2 months.
6/6/2012	2.0		All	Approved by the Department of Planning and Infrastructure on 6/6/2012
21/5/2013		2.1	All	Minor monitoring location changes
27/5/2013	3.0		All	Approved by the Department of Planning and Infrastructure on 27/5/2013
10/07/2019		3.1	All	Major 5-year review and amendments for DPIE Review. Updated to new Mt Arthur Management Plan Template.
17/07/2020	4.0		All	Approved by the Department of Planning and Infrastructure
28/04/2023	5.0	All	All	Approved by the Department of Planning and Environment (DPE)
15/07/2025	6.0		All	Submitted to DPHI for approval

Appendix 1 – Attended Noise Monitoring Locations



Appendix 2 – Receiver Zones Overview (Figure 6-6, PA 09_0062 MOD3)



Note: Noise monitoring locations (Appendix 1) and Zoning areas (Table 4) of this NMP.

Appendix 3 - Noise Trigger Action Response Plan (TARP)

Trigger	Business as Usual Mining	Alert Level 2– Unattended Monitoring ¹ (as outlined in the Noise Management Procedure)	Alert Level 3 – Compliance Monitoring exceedance
<p>Action Response Plan</p>	<p>Standard control measures include:</p> <ol style="list-style-type: none"> Controlling noise at the source; <ul style="list-style-type: none"> Maintaining sound power specifications Short term planning design strategies e.g. day and night dumping locations Strategic location of fixed infrastructure Utilisation of noise forecasting tool Controlling noise transmission; <ul style="list-style-type: none"> 40-metre-high bund adjacent the washery 4.2-kilometre-long bund to reduce pit activity noise Noise fencing along rail spur 	<p>MAC use logged LP LAeq and LA 90 levels at unattended directional loggers situated around the mine. These loggers alert when the impact assessment criteria is exceeded for two 15-minute readings. Background noise may be included in this alert. MAC-ENC-PRO-056 Noise Management Procedure details the implementation and utilisation of the Noise TARP including roles and responsibilities.</p> <p>Following the notification:</p> <ol style="list-style-type: none"> The OCE will listen to real-time monitor audio (if available) or inspect the relevant site to determine whether the alert was due to mining noise (as opposed to traffic or rail noise); If alert is due to mining noise, the OCE will determine reasonable and feasible mitigation measures from available controls based on the outcome of the inspection, which can include any of the following: <ul style="list-style-type: none"> Modifying dozer operations Modifying dumping operations; Modifying hauling operations. The OCE will either record the actions taken or contact MAC Dispatch to provide the details of the actions taken; The OCE will continue to monitor operational noise. 	<p>In the event of an initial exceedance, the independent consultant will contact MAC personnel to inform them of the potential exceedance. Following this, MAC has 75 minutes to lower noise emissions below the criteria before a formal exceedance is triggered (if meteorological conditions are applicable). Refer to Section 12.1.</p> <p>Following the notification:</p> <ol style="list-style-type: none"> The OCE will assess all mining noise and sources; The OCE will determine reasonable and feasible mitigation measures from available controls based on the outcome of the inspection, these may include any of the following: <ul style="list-style-type: none"> Shutting down dozer operations Altering dumping operations; Altering hauling operations. The OCE will continue to monitor operational noise including via real-time noise monitors and wait for feedback from consultant after the 75min period; If an exceedance is recorded after the 75min period, the event is reported within 24 hours and an investigation begins (if applicability of the criteria is confirmed - Section 12.1). If the remeasure is void due to meteorological conditions, a follow-up remeasure will be completed in a subsequent night. The event is reported if a formal exceedance is recorded.
<p>Manual Noise TARP</p>	<ul style="list-style-type: none"> A manual TARP can be used to trigger an alert based on real-time monitor audio or an inspection conducted by the OCE. A manual TARP response or inspection can also be triggered if a real time monitor or the real time system is experiencing technical issue. 		

¹ Real time monitoring as per Alert Level 2 is a cumulative indication that may include background noise and Mt Arthur contribution.

Appendix 4 - Conditions Compliance Tables

Table 4 : Development Consent (09_062) relevant conditions

Condition Number	Environmental Performance Condition	Addressed within																																													
Development Consent (09_062)																																															
Schedule 3 Condition 2	<p>NOISE Impact Assessment Criteria The Applicant must ensure that the noise generated by the Mt Arthur mine complex does not exceed the criteria in Table 2 at any residence on privately-owned land, except where such exceedances were predicted in the EA.</p> <p><i>Table 2: Noise Impact Assessment Criteria dB(A)</i></p> <table border="1" data-bbox="316 591 1262 1025"> <thead> <tr> <th>Location</th> <th>Day (L_{Aeq} (15min))</th> <th>Evening (L_{Aeq} (15min))</th> <th>Night (L_{Aeq} (15min))</th> <th>Night (L_{A1} (1 min))</th> </tr> </thead> <tbody> <tr> <td>A – Antiene Estate</td> <td>37</td> <td>40</td> <td>38</td> <td>45</td> </tr> <tr> <td>B – Skellatar Stock Route, Thomas Mitchell Drive, Denman Road East</td> <td>39</td> <td>38</td> <td>37</td> <td>45</td> </tr> <tr> <td>C – Racecourse Road</td> <td>41</td> <td>40</td> <td>39</td> <td>45</td> </tr> <tr> <td>D – Denman Road North-west, Roxburgh Vineyard (north-east), Roxburgh Road</td> <td>37</td> <td>36</td> <td>35</td> <td>45</td> </tr> <tr> <td>E – South Muswellbrook</td> <td>39</td> <td>39</td> <td>39</td> <td>45</td> </tr> <tr> <td>F – Denman Road West, Roxburgh Vineyard (west)</td> <td>37</td> <td>36</td> <td>35</td> <td>45</td> </tr> <tr> <td>G – East Antiene</td> <td>41</td> <td>40</td> <td>39</td> <td>45</td> </tr> <tr> <td>H – South of Mine</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table> <p><i>Note: To interpret the locations referred to Table 2, see the applicable figures in Appendix 4 and Appendix 5.</i></p> <p>Noise generated by the Mt Arthur mine complex is to be measured in accordance with the relevant requirements of the NSW NPfl. Appendix 10 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.</p> <p>However, these criteria do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.</p>	Location	Day (L _{Aeq} (15min))	Evening (L _{Aeq} (15min))	Night (L _{Aeq} (15min))	Night (L _{A1} (1 min))	A – Antiene Estate	37	40	38	45	B – Skellatar Stock Route, Thomas Mitchell Drive, Denman Road East	39	38	37	45	C – Racecourse Road	41	40	39	45	D – Denman Road North-west, Roxburgh Vineyard (north-east), Roxburgh Road	37	36	35	45	E – South Muswellbrook	39	39	39	45	F – Denman Road West, Roxburgh Vineyard (west)	37	36	35	45	G – East Antiene	41	40	39	45	H – South of Mine	35	35	35	45	Section 2.3 Section 11
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Schedule 3 Condition 1 & 7	<p>NOISE Acquisition Upon Request Upon receiving a written request for acquisition from an owner of the land listed in Table 1, the Applicant must acquire the land in accordance with the procedures in conditions 7-8 of schedule 4.</p> <p><i>Table 1: Land subject to acquisition upon request</i></p> <table border="1" data-bbox="331 1487 1169 1827"> <thead> <tr> <th>Receiver No.¹</th> <th>Receiver</th> <th>Acquisition Basis</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>Private landholder</td> <td>Air quality</td> </tr> <tr> <td>28²</td> <td>Private landholder</td> <td>Air quality</td> </tr> <tr> <td>29²</td> <td>Private landholder</td> <td>Air quality</td> </tr> <tr> <td>101³</td> <td>Private landholder</td> <td>Noise</td> </tr> <tr> <td>102</td> <td>Private landholder</td> <td>Noise</td> </tr> <tr> <td>226</td> <td>Private landholder</td> <td>Air quality</td> </tr> <tr> <td>264⁴</td> <td>Private landholder</td> <td>Air quality</td> </tr> </tbody> </table> <p><i>Notes:</i></p> <ol style="list-style-type: none"> To interpret the locations referred to in Table 1, see the applicable figure in Appendix 4. These receivers will maintain their rights to acquisition upon request until 31 December 2016, when the EA predicts that the development will comply with the relevant acquisition criteria at these properties. The Applicant is only required to acquire this property if acquisition is no longer reasonably achievable under the approval for the Maxwell mine. The Applicant is only required to acquire this property if acquisition is not reasonably achievable under a separate approval for the Bengalla mine. <p>Additional Noise Mitigation Measures Upon receiving a written request from the owner of any residence:</p>	Receiver No. ¹	Receiver	Acquisition Basis	6	Private landholder	Air quality	28 ²	Private landholder	Air quality	29 ²	Private landholder	Air quality	101 ³	Private landholder	Noise	102	Private landholder	Noise	226	Private landholder	Air quality	264 ⁴	Private landholder	Air quality	Section 10.3																					
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264 ⁴	Private landholder	Air quality																																													

Condition Number	Environmental Performance Condition	Addressed within																				
Development Consent (09_062)																						
	<p>(a) on the noise affected land listed in Table 1 (unless the landowner has requested acquisition under this consent); and</p> <p>(b) on the land listed in Table 4, the Applicant must implement reasonable and feasible noise mitigation measures (such as double glazing, insulation, and/or air conditioning) at any residence in consultation with the owner.</p> <p>If within 3 months of receiving this request from the landowner, the Applicant and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.</p> <p><i>Table 4: Land subject to additional noise mitigation upon request</i></p> <table border="1" data-bbox="328 591 868 1021"> <thead> <tr> <th>Receiver No.¹</th> <th>Receiver</th> </tr> </thead> <tbody> <tr> <td>6²</td> <td>Private landholder</td> </tr> <tr> <td>94</td> <td>Private landholder</td> </tr> <tr> <td>97²</td> <td>Private landholder</td> </tr> <tr> <td>98²</td> <td>Private landholder</td> </tr> <tr> <td>99²</td> <td>Private landholder (2 residences)</td> </tr> <tr> <td>100</td> <td>Private landholder</td> </tr> <tr> <td>200</td> <td>Private landholder</td> </tr> <tr> <td>200a</td> <td>Private landholder</td> </tr> <tr> <td>226</td> <td>Private landholder</td> </tr> </tbody> </table> <p><i>Notes:</i></p> <p>1 To interpret the locations referred to in Table 4, see the applicable figure in Appendix 4.</p> <p>2 These receivers will maintain their rights to mitigation upon request until 31 December 2016, when the EA predicts that the development will comply with the relevant criteria at these properties.</p>	Receiver No. ¹	Receiver	6 ²	Private landholder	94	Private landholder	97 ²	Private landholder	98 ²	Private landholder	99 ²	Private landholder (2 residences)	100	Private landholder	200	Private landholder	200a	Private landholder	226	Private landholder	
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Schedule 3 Condition 8	<p>Operating Conditions</p> <p>The Applicant must :</p> <p>(a) implement best noise management practice, which includes implementing all reasonable and feasible noise mitigation measures to minimise the operational, road and rail noise of the Mt Arthur mine complex;</p> <p>(b) operate a comprehensive noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations, and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent;</p> <p>(c) minimise the noise impacts of the development during meteorological conditions when the noise limits in this consent do not apply (see Appendix 10);</p> <p>(d) co-ordinate noise management at the Mt Arthur mine complex with the noise management at the Maxwell and Bengalla mines to minimise cumulative noise impacts; and</p> <p>(e) carry out monthly attended monitoring in accordance with Appendix 10 (unless otherwise agreed with the Secretary), to determine whether the Mt Arthur mine complex is complying with the relevant conditions of this consent..</p>	Section 9 (a) Section 10.1 (b) Section 11.3 (c) Section 6 (d) Section 11.1.2 (e)																				
Schedule 3 Condition 9	<p>Noise Management Plan</p> <p>The Applicant must prepare and implement a Noise Management Plan for the Mt Arthur mine complex to the satisfaction of the Secretary. This plan must:</p> <p>(a) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this consent;</p> <p>(b) describe the proposed noise management system in detail; and include a monitoring program that:</p> <ul style="list-style-type: none"> - evaluates and reports on: - the effectiveness of the noise management system; - compliance against the noise criteria in this consent; and - compliance against the noise operating conditions; - includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time (so the real-time noise monitoring program can be used as a better indicator of compliance with the noise criteria in this consent and trigger for further attended monitoring); and 	Section 10 (a) Section 11 (b)																				

Condition Number	Environmental Performance Condition	Addressed within
Development Consent (09_062)		
	- defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.	
Schedule 5 Condition 2	<p>Management Plan Requirements</p> <p>The Applicant must ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <ul style="list-style-type: none"> a) detailed baseline data; b) a description of: <ul style="list-style-type: none"> - the relevant statutory requirements (including any relevant approval, licence or lease conditions); - any relevant limits or performance measures/criteria; - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria; d) a program to monitor and report on the: <ul style="list-style-type: none"> - impacts and environmental performance of the development; - effectiveness of any management measures (see c above); e) a contingency plan to manage any unpredicted impacts and their consequences; f) a program to investigate and implement ways to improve the environmental performance of the development over time; g) a protocol for managing and reporting any: <ul style="list-style-type: none"> - incidents; - complaints; - non-compliances with statutory requirements; and - exceedances of the impact assessment criteria and/or performance criteria; and a protocol for periodic review of the plan. 	Section 2.2 (a) Section 2.1 (b) Section 2.3 (b) Section 10 (c) Section 11 (d) Section 10.1.3 (e) Section 12.6 (b) (f) Section 12 (g)
Schedule 5 Condition 7	<p>Reporting Incident Notification</p> <p>The Applicant must notify the Department within 24 hours of becoming aware of an incident. The notification must be made via the NSW planning portal (Major Projects) and address details of the incident including:</p> <ul style="list-style-type: none"> (a) date, time and location; (b) a brief description of what occurred and why it has been classified as an incident; (c) a description of what immediate steps were taken in relation to the incident; and (d) identifying a contact person for further communication regarding the incident. 	Section 12.1
Schedule 5 Condition 7A	The Applicant must provide the Department with a subsequent incident report in accordance with Appendix 11 (Incident Notification and Reporting Requirements).	Section 12.2
Schedule 5 Condition 8	The Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent, and to the satisfaction of the Secretary.	Section 13
Schedule 5 Condition 11	<p>ACCESS TO INFORMATION</p> <p>From the end of December 2010, the Applicant must:</p> <ul style="list-style-type: none"> a) make the following information publicly available on its website: <ul style="list-style-type: none"> - a copy of all current statutory approvals for the development; - a copy of the current environmental management strategy and associated plans and programs; - a summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval; - a complaints register, which is to be updated on a monthly basis; - a copy of the minutes of CCC meetings; - a copy of any Annual Reviews (over the last 5 years); - a copy of any Independent Environmental Audit, and the Applicant's response to the recommendations in any audit; - any other matter required by the Secretary; and b) keep this information up to date, to the satisfaction of the Secretary. 	Section 13
Appendix 10 Condition 1	<p>APPENDIX 10: NOISE COMPLIANCE ASSESSMENT</p> <p>Applicable Meteorological Conditions</p> <p>The noise criteria in Table 2 of Schedule 3 are to apply under all meteorological conditions except the following:</p> <ul style="list-style-type: none"> (a) during periods of rain or hail; (b) average wind speed at microphone height exceeds 5 m/s; 	Section 11.5

Condition Number	Environmental Performance Condition	Addressed within
Development Consent (09_062)		
	(c) wind speeds greater than 3 m/s measured at 10 m above ground level; or (d) temperature inversion conditions greater than 3°C/100 m, or alternatively stability class F and G.	
Appendix 10 Condition 2	Determination of Meteorological Conditions Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be that recorded by the meteorological station on or in the vicinity of the site.	Section 11.2
Appendix 10 Condition 3	Compliance Monitoring Attended monitoring is to be used to determine compliance with the relevant conditions of this consent.	Section 11.1.2
Appendix 10 Condition 4	This monitoring must be carried out at least once a month (but at least two weeks apart), unless the Secretary directs otherwise. <i>Note: The Secretary may direct that the frequency of attended monitoring increase or decrease at any time during the life of the development.</i>	Section 11.1.2
Appendix 10 Condition 5	Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW NPfl (as amended from time to time), in particular the requirements relating to: (a) monitoring locations for the collection of representative noise data; (b) meteorological conditions during which collection of noise data is not appropriate; (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and (d) modifications to noise data collected including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.	Section 11.1.2
Appendix 11 Condition 1	INCIDENT NOTIFICATION AND REPORTING REQUIREMENTS Incident Notification Requirements All incident notifications and reports must be submitted via the NSW planning portal (Major Projects).	Section 12.1 Section 12.2
Appendix 11 Condition 2	The Applicant must provide notification as required under these requirements, even if the Applicant fails to give the notification required under condition 7 of Schedule 5 of this consent or, having given such notification, subsequently forms the view that an incident has not occurred.	Section 12.1
Appendix 11 Condition 3	Within 7 days (or as otherwise agreed by the Secretary) of the Applicant making the immediate incident notification (in accordance with condition 7 of Schedule 5 of this consent), the Applicant is required to submit a subsequent incident report that: (a) identifies how the incident was detected; (b) identifies when the Applicant became aware of the incident; (c) identifies any actual or potential non-compliance with conditions of consent; (d) identifies further action(s) that will be taken in relation to the incident; and (e) a summary of the incident; (f) outcomes of an incident investigation, including identification of the cause of the incident; (g) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence, including the period for implementing any corrective and/or preventative actions; and (h) details of any communication with other stakeholders regarding the incident.	Section 12.1 Section 12.2

Table 5 Environmental Protection Licence EPL11457 relevant conditions

Condition Number	Environmental Performance Condition	Addressed within																																													
EPL11457																																															
P1.4	<p>The following points referred to in the table below are identified in this licence for the purposes of noise monitoring and/or weather monitoring conditions.</p> <table border="1" data-bbox="389 383 1275 1050"> <thead> <tr> <th colspan="3" data-bbox="743 383 871 405"><i>Noise/Weather</i></th> </tr> <tr> <th data-bbox="389 416 496 461">EPA identification no.</th> <th data-bbox="496 416 908 439">Type of monitoring point</th> <th data-bbox="908 416 1275 439">Location description</th> </tr> </thead> <tbody> <tr> <td data-bbox="389 461 496 528">16</td> <td data-bbox="496 461 908 528">Noise monitoring</td> <td data-bbox="908 461 1275 528">Noise monitoring at coordinates 304286, 6421977 (Easting, Northing), shown as NP04 on Figure 1.</td> </tr> <tr> <td data-bbox="389 528 496 595">17</td> <td data-bbox="496 528 908 595">Noise monitoring</td> <td data-bbox="908 528 1275 595">Noise monitoring at coordinates 299169, 6426452 (Easting, Northing), shown as NP07 on Figure 1.</td> </tr> <tr> <td data-bbox="389 595 496 663">18</td> <td data-bbox="496 595 908 663">Noise monitoring</td> <td data-bbox="908 595 1275 663">Noise monitoring at coordinates 301592, 6425957 (Easting, Northing), shown as NP10 on Figure 1.</td> </tr> <tr> <td data-bbox="389 663 496 730">19</td> <td data-bbox="496 663 908 730">Noise monitoring</td> <td data-bbox="908 663 1275 730">Noise monitoring at coordinates 305526, 6422261 (Easting, Northing), shown as NP12 on Figure 1.</td> </tr> <tr> <td data-bbox="389 730 496 797">20</td> <td data-bbox="496 730 908 797">Noise monitoring</td> <td data-bbox="908 730 1275 797">Noise monitoring at coordinates 292410, 6409176 (Easting, Northing), shown as NP13 on Figure 1.</td> </tr> <tr> <td data-bbox="389 797 496 864">21</td> <td data-bbox="496 797 908 864">Noise monitoring</td> <td data-bbox="908 797 1275 864">Noise monitoring at coordinates 289306, 6423366 (Easting, Northing), shown as NP14 on Figure 1.</td> </tr> <tr> <td data-bbox="389 864 496 931">22</td> <td data-bbox="496 864 908 931">Noise monitoring</td> <td data-bbox="908 864 1275 931">Noise monitoring at coordinates 290286, 6422257 (Easting, Northing), shown as NP15 on Figure 1.</td> </tr> <tr> <td data-bbox="389 931 496 999">23</td> <td data-bbox="496 931 908 999">Noise monitoring</td> <td data-bbox="908 931 1275 999">Noise monitoring at coordinates 299747, 6426811 (Easting, Northing), shown as NP16 on Figure 1.</td> </tr> <tr> <td data-bbox="389 999 496 1050">24</td> <td data-bbox="496 999 908 1050">Meteorological Station</td> <td data-bbox="908 999 1275 1050">Meteorological monitoring at coordinates 301203, 6420155 (Easting, Northing), shown as WS09 on Figure 1.</td> </tr> </tbody> </table>	<i>Noise/Weather</i>			EPA identification no.	Type of monitoring point	Location description	16	Noise monitoring	Noise monitoring at coordinates 304286, 6421977 (Easting, Northing), shown as NP04 on Figure 1.	17	Noise monitoring	Noise monitoring at coordinates 299169, 6426452 (Easting, Northing), shown as NP07 on Figure 1.	18	Noise monitoring	Noise monitoring at coordinates 301592, 6425957 (Easting, Northing), shown as NP10 on Figure 1.	19	Noise monitoring	Noise monitoring at coordinates 305526, 6422261 (Easting, Northing), shown as NP12 on Figure 1.	20	Noise monitoring	Noise monitoring at coordinates 292410, 6409176 (Easting, Northing), shown as NP13 on Figure 1.	21	Noise monitoring	Noise monitoring at coordinates 289306, 6423366 (Easting, Northing), shown as NP14 on Figure 1.	22	Noise monitoring	Noise monitoring at coordinates 290286, 6422257 (Easting, Northing), shown as NP15 on Figure 1.	23	Noise monitoring	Noise monitoring at coordinates 299747, 6426811 (Easting, Northing), shown as NP16 on Figure 1.	24	Meteorological Station	Meteorological monitoring at coordinates 301203, 6420155 (Easting, Northing), shown as WS09 on Figure 1.	Section 11.3												
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L5.1	<p>Operational noise from the premises must not exceed:</p> <table border="1" data-bbox="389 1099 1275 1406"> <thead> <tr> <th data-bbox="389 1099 496 1122">LOCATION</th> <th data-bbox="496 1099 708 1144">Day LAeq (15 minute) dBA</th> <th data-bbox="708 1099 908 1144">Evening LAeq (15 minute) dBA</th> <th data-bbox="908 1099 1086 1144">Night LAeq (15 minute) dBA</th> <th data-bbox="1086 1099 1275 1144">Night LA1 (1 Minute) dBA</th> </tr> </thead> <tbody> <tr> <td data-bbox="389 1144 496 1167">EPA Point 16</td> <td data-bbox="496 1144 708 1167">37</td> <td data-bbox="708 1144 908 1167">40</td> <td data-bbox="908 1144 1086 1167">38</td> <td data-bbox="1086 1144 1275 1167">45</td> </tr> <tr> <td data-bbox="389 1167 496 1189">EPA Point 17</td> <td data-bbox="496 1167 708 1189">41</td> <td data-bbox="708 1167 908 1189">40</td> <td data-bbox="908 1167 1086 1189">39</td> <td data-bbox="1086 1167 1275 1189">45</td> </tr> <tr> <td data-bbox="389 1189 496 1211">EPA Point 18</td> <td data-bbox="496 1189 708 1211">39</td> <td data-bbox="708 1189 908 1211">39</td> <td data-bbox="908 1189 1086 1211">39</td> <td data-bbox="1086 1189 1275 1211">45</td> </tr> <tr> <td data-bbox="389 1211 496 1234">EPA Point 19</td> <td data-bbox="496 1211 708 1234">41</td> <td data-bbox="708 1211 908 1234">40</td> <td data-bbox="908 1211 1086 1234">39</td> <td data-bbox="1086 1211 1275 1234">45</td> </tr> <tr> <td data-bbox="389 1234 496 1256">EPA Point 20</td> <td data-bbox="496 1234 708 1256">35</td> <td data-bbox="708 1234 908 1256">35</td> <td data-bbox="908 1234 1086 1256">35</td> <td data-bbox="1086 1234 1275 1256">45</td> </tr> <tr> <td data-bbox="389 1256 496 1279">EPA Point 21</td> <td data-bbox="496 1256 708 1279">37</td> <td data-bbox="708 1256 908 1279">36</td> <td data-bbox="908 1256 1086 1279">35</td> <td data-bbox="1086 1256 1275 1279">45</td> </tr> <tr> <td data-bbox="389 1279 496 1301">EPA Point 22</td> <td data-bbox="496 1279 708 1301">37</td> <td data-bbox="708 1279 908 1301">36</td> <td data-bbox="908 1279 1086 1301">35</td> <td data-bbox="1086 1279 1275 1301">45</td> </tr> <tr> <td data-bbox="389 1301 496 1323">EPA Point 23</td> <td data-bbox="496 1301 708 1323">39</td> <td data-bbox="708 1301 908 1323">38</td> <td data-bbox="908 1301 1086 1323">37</td> <td data-bbox="1086 1301 1275 1323">45</td> </tr> </tbody> </table> <p>Note:</p> <p>(1) Description:</p> <ul style="list-style-type: none"> • EPA Point 16: NP04 • EPA Point 17: NP07 • EPA Point 18: NP10 • EPA Point 19: NP12 • EPA Point 20: NP13 • EPA Point 21: NP14 • EPA Point 22: NP15 • EPA Point 23: NP16 <p>(2) Definitions:</p> <p>LAeq (15 minute) is the value of LAeq (15 minute) which shall not be exceeded for more than 10% of the monitoring periods detailed in the noise monitoring program for independent noise investigations and includes the full range of weather conditions occurring at the time of monitoring.</p> <ul style="list-style-type: none"> • Day means 7am to 6pm; • Evening means 6pm to 10pm; and • Night means 10pm to 7am 	LOCATION	Day LAeq (15 minute) dBA	Evening LAeq (15 minute) dBA	Night LAeq (15 minute) dBA	Night LA1 (1 Minute) dBA	EPA Point 16	37	40	38	45	EPA Point 17	41	40	39	45	EPA Point 18	39	39	39	45	EPA Point 19	41	40	39	45	EPA Point 20	35	35	35	45	EPA Point 21	37	36	35	45	EPA Point 22	37	36	35	45	EPA Point 23	39	38	37	45	Section 2.3
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M5.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Section 12.5																																													
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Condition Number	Environmental Performance Condition	Addressed within								
	b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.									
M10.1	To assess compliance with the noise limits specified within this licence, the licensee must undertake operator attended noise monitoring at each specified noise monitoring point in accordance with the table below. POINT 16,17,18,19,20,21,22,23 <table border="1" data-bbox="440 544 1273 636"> <thead> <tr> <th data-bbox="440 544 608 598">Assessment period</th> <th data-bbox="608 544 826 598">Minimum frequency in a reporting period</th> <th data-bbox="826 544 1045 598">Minimum duration within assessment period</th> <th data-bbox="1045 544 1273 598">Minimum number of assessment period</th> </tr> </thead> <tbody> <tr> <td data-bbox="440 598 608 636">Night</td> <td data-bbox="608 598 826 636">Monthly</td> <td data-bbox="826 598 1045 636">15 minutes</td> <td data-bbox="1045 598 1273 636">1 operation day</td> </tr> </tbody> </table>	Assessment period	Minimum frequency in a reporting period	Minimum duration within assessment period	Minimum number of assessment period	Night	Monthly	15 minutes	1 operation day	Section 11.1.2 Section 11.3
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R4.2	Noise Exceedance Notification The Licensee must report any exceedance of licence noise limits to the EPA Regulatory Operations Metro North at info@epa.nsw.gov.au as soon as practicable after the exceedance becomes know to the Licensee or to one of the Licensee's employees or agents	Section 12.1								

Appendix 5 – Approval from Department of Planning, Housing, and Infrastructure