MANAGEMENT PLAN
Noise Management
MAC-ENC-MTP-032

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1 Preface

Hunter Valley Energy Coal Pty Ltd (HVEC) operates the Mt Arthur Coal Mine Complex (Mt Arthur Coal) which consists of approved open cut and underground mining operations, a rail loop and associated rail loading facilities, in accordance with the Mt Arthur Coal Open Cut Consolidation Project Approval (09_0062 MOD 1) dated 26 September 2014 (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 whilst domestic coal is generally transported via conveyor directly to the Bayswater Power Station. 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) and Mt Arthur Coal Open Cut Modification Environmental Assessment (Resource Strategies, 2013).

2 Legislation, Standards and Regulations

2.1 Relevant Legislation and Regulations

Requirements and commitments associated with noise are defined within the following key statutory approvals:

- Mt Arthur Coal Mine Open Cut Consolidation Project Modification 1 (09_0062 MOD 1); and
- Environmental Protection Licence EPL 11457 09/10/2001 (varied on 17/10/2018).

A list of the relevant conditions of the Approval and where they are addressed in this NMP is found in Appendix 4, Table 4. A list of the relevant conditions of the Licence and where they are addressed in this NMP is found in Appendix 4, Table 5.

The Approvals and subsequent amendments were assessed under the Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act.). The Protection of the Environment Operations Act 1997 (NSW) (PoEO Act) is the principal piece of legislation regulating pollution emissions in NSW.

In accordance with the Project Approval, Mt Arthur Coal will implement best practice 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. Mt Arthur Coal will ensure noise generated by the project meets the criteria listed in Table 1 at any residence on privately owned land, except where exceedances were predicted in the Environmental Assessment.

Table 1 Noise Impact Assessment Criteria dB(A)

Location	Day (LAeq(15min))	Evening (LAeq(15min))	Night (LAeq(15min))	Night (LA1(1min))
A – Antiene Estate	37	40	38	45
B – Skelletar 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

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 INP.

2.2 Baseline Data

To set noise criteria the residences were grouped into Zone A to H where is it considered the Rating Background Level (RBL) and existing industrial noise are consistent across the zone. The zones are shown in Appendix 2. The existing background levels (RBLs) were used in conjunction with noise surveys to calculate the operational noise impact assessment criteria as listed in Table 1.

Table 2 Baseline Data from EIS

Location	Day (LAeq(15min))	Evening (LAeq(15min))	Night (LAeq(15min))
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
D – Denman Road North-west, Roxburgh Vineyard (north-east), Roxburgh Road	32	31	30
E – South Muswellbrook	34	34	34
F – Denman Road West, Roxburgh Vineyard (west)	32	31	30
G – East Antiene	36	35	34
H – South of Mine	30	30	30

2.3 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.

2.4 Glossary

Term	Definition
Evening	Refers to the period from 6 pm to 10 pm
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).
LAmax	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.
Night	The period from 10 pm to 7 am (Monday to Saturday), and 10 pm to 8 am (Sundays and public holidays).

2.5 External Documents

- NSW EPA (17/10/2018) Environmental Protection Licence 11457
- Mt Arthur Coal Open Cut Consolidation Project Approval (09_0062 MOD 1) dated 26 September 2014 (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 Mount Arthur North Coal Project, Environmental Impact Statement. Prepared for Coal Operations Australia Limited.

3 Purpose

The purpose of this Noise Management Plan (NMP) is to describe in detail the systems and processes 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 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.

4 Scope

4.1 Included

The scope of this NMP applies to all activities at Mt Arthur Coal Complex 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.

4.2 Excluded

The noise impacts of blasting are managed via the Blast Management Plan (MAC-ENC-MTP-015) and therefore it is recommended this management plan is read in conjunction with the Blast Management Plan.

5 Best Practice Noise Management

Mt Arthur Coal implements best practice noise management in order to ensure the criteria in Table 1 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 in order 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 in order to arrange alternate haul routes and dumping strategies, see Section 8.1.1. Forecasting tools provide operational staff with data in order to inform changes as required on a proactive 24hrly basis, see Section 8.1.2. Lastly noise monitoring provides the ability to make reactive changes to operations and control noise where required. Compliance monitoring is completed on a monthly basis, Section 9.4 and operational control monitoring, 9.3, is done on a continuous real time basis. All monitoring informs the functionality of the Noise TARP, as provided in Appendix 3. The Annual Review describes the outcomes from the noise management, modelling and measurement through the year.

Best practice for Mt Arthur is driven by the above continuous improvement feedback loop in order to maintain compliance to PA09_0062 and ensure all reasonable and feasible measures are implemented at all times.

6 Consultation and Communication

This NMP has been prepared in consultation with the Department of Planning, Industry and Environment (DPIE). In addition, Mt Arthur Coal has extensive consultation and communication processes, including:

- a comprehensive community engagement program which includes a Community Consultative Committee (CCC);
- quarterly via the Upper Hunter Mining Dialogue for co-ordination of noise management at the Mine Arthur mine complex with Malabar, Mangoola and Bengalla mines to minimise cumulative noise impacts;
- Quarterly meetings with Bengalla and Mount Pleasant to discuss Cumulative impacts and how they will be managed. This meeting is held in order 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;
- 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 with noise as they arise, see Section 8.1.3 Complaint Handling; and
- publicly available project approvals, environmental and other related documentation (annual reports, complaints register, CCC minutes etc.) via the BHP Mt Arthur Coal website (https://www.bhp.com/environment/regulatory-information).

7 Roles and Responsibilities

The maintenance and update of this NMP is the responsibility of the HSE Superintendent. Implementation of operational controls is the responsibility of the Open Cut Examiners (OCE) and Supervisors. Conduction of Sound Power Testing and maintenance of sound suppression on mobile fleet is the responsibility of the Maintenance Superintendent, completion of annual/ three yearly modelling is the responsibility of the Environmental Specialists and the Mining Engineering Manager.

Taking action 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 to implement controls as required

8 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 NSW Industrial Noise Policy (INP) descriptions/ categorisations for mitigation of noise from industrial sources:

- Controlling noise at the source - Includes Best Management Practice (BMP) and Best Available Technology Economically Achievable (BATEA).
- 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 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. In the event that noise levels are identified to exceed the criteria listed in Table 2, the Trigger Action Response Plan (TARP) is activated to facilitate the reasonable and feasible medication of mining activity to avoid exceedances of the criteria in Table 1. The TARP is facilitated real-time whereby a dashboard presents a visual map with real-time updates of logged LAeq levels at unattended directional loggers situated around the mine. The TARP is included in Appendix 3. Further information on the TARP can be found in Section 7.1.3.

8.1 Controlling Noise at the Source

Where necessary, in the event of any exceedance or complaint, Mt Arthur Coal will investigate relevant noise sources to determine if any of the feasible and reasonable measures can be implemented. 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 1.

8.1.1 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 of the Project Approval 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. Completion of modelling is used to demonstrate that the implementation of this control is effective and also demonstrates that these measures are best practice. This modelling and measurement shows that the criteria in Table 2 is met. Best practice noise suppression shall be supported by predictive modelling processes including sound power testing on a sample of the fleet or as approved by the Risk Owner, Mining Engineering Manager, in conjunction with an operational risk assessment to maintain ongoing compliance at off site receivers.

A variety of mitigation measures are available to operations that can be used in isolation or in combination to further mitigate noise generated by the project where related to the mine plan. These can be split into two; planning and production.

Planning controls are proactive and ensure that there are mitigation measures in place before noise emissions occur, and the production controls are in place to ensure that noise is controlled in adverse meteorological conditions. 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 also daily forecasting results. Mine Planning are responsible for controls such as development of day and night time dumps whereas Supervisors and/or OCE's are responsible for implementing controls such as using bulldozers in less sensitive areas in response to forecasting results.

8.1.2 Noise forecasting

Mt Arthur Coal uses a proactive noise risk forecast tool to predict noise emissions and risk for sensitive receptors. The MAC Noise Risk Forecast is employed to inform operations for the next 24 hours by providing an assessment of risk for each pit on elevated noise levels at offsite receptors. Noise risk is presented visually within the tool in increment heat maps. The Noise Risk Forecast is issued via email to all Open Cut Examiners (OCE) daily.

Inputs into the forecasting model includes:

- predicted meteorological conditions;
- sensitive receptor locations;
- haul configurations; and
- mid-term planning data such as pit contours and dump locations.

Should elevated noise levels be predicted, Production Supervisors and/or OCE's will review and consider mitigative controls to be executed. This tool is used to ensure noise emissions are managed throughout periods of noise enhancing meteorological conditions. The daily MAC Noise Risk Forecast is used to inform pre-starts when noise risk is at its highest. For high risk periods and locations. Preparatory actions prior to shift can 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 noise monitoring outlined in Section 9, 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 in order 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.

8.1.3 Trigger Action Response Plan

The Trigger Action Response Plan (TARP) is included within **Error! Reference source not found.**. The TARP is facilitated real-t ime whereby a dashboard presents a visual map with real-time updates of logged LAeq levels at unattended directional loggers situated around the mine (see Section 9.2.1).. The TARP facilitates the reasonable modification of mining activity to mitigate intrusive noise emissions from MAC mining activities in order to avoid exceedances of the criteria in Table 1 and comply with the relevant statutory requirements. Real time unattended noise monitoring is a cumulative indication and assessment that includes all background noise and Mt Arthur Coal's Contribution. In order to determine Mt Arthur contribution Supervisors and/or OCEs attend monitoring locations to verify MAC's contribution.

Alert triggers are automatically generated when noise levels exceed the trigger criteria outlined in Table 2. Following the generation of an Alert Trigger the OCE is notified to activate the TARP. Actions to mitigate the generation of noise are included within the TARP and a record of response will be kept.

If, between 10.00pm and 7:00am, logged Mt Arthur Coal directional LP LAeq (15 minute) exceed the Noise Alert Thresholds outlined in Table 2 for any two consecutive 15 minute period at any location, alerts are sent to the MAC Open Cut Examiners (OCE). Following this the OCEs are required to activate the Noise TARP as found in **Error! Reference source not found.** Alarms w ill not be generated when wind speed is above 5 m/s or during periods of rainfall, as the environmental noise levels will not be representative. Real time monitoring as per Alert Level 2 is a cumulative indication that includes all background noise and Mt Arthur contribution.

Table 3 Noise Alert Thresholds

Location	Noise level (dB)
Sheppard Avenue	39
South Muswellbrook	39
Wellbrook	35
Antiene	38

8.1.4 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.

8.2 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 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.

8.3 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 could 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) of PA09_0062 MOD 1, Mt Arthur Coal shall acquire the land in accordance with the procedures in conditions 7-8 of Schedule 4.

9 Noise Monitoring Programs

9.1 Assessment Criteria

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 noise criteria in Table 2 of Schedule 2 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.

9.2 Monitoring Methodology

All monitoring shall be conducted in accordance with NSW INP guidelines, Fact Sheet C of the NSW NPfI and Australian Standard AS 1055 ‘Acoustics, Description and Measurement of Environmental Noise’.

Type 1 equipment, as defined in Australian Standard AS 1259.2 ‘Acoustics - Sound level meters - Integrating – Averaging’, will be used for all attended and unattended monitoring.

9.3 Unattended Monitoring Method

Continuous noise measurement is undertaken for management purposes using directional noise loggers capable of providing 1000 Hertz low pass (LP) data 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.

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

If the logged Mt Arthur noise measurement exceeds the criteria at any logger location, alerts are sent to the Open Cut Examiners (OCE) and any responses recorded in accordance with the TARP requirements outlined in Section 8.4. Alarms will not be generated when wind speed is above 5 m/s or during periods of rainfall, as the environmental noise levels will not be representative. Calibration of unattended equipment will take place in line with the manufacturer's recommendations. Attended Monitoring Method

9.4 Attended Monitoring Method

Mt Arthur mine is responsible for completing monthly attended noise monitoring to be carried out in accordance with Appendix 10 of PA 09_0062. This monitoring is used to determine compliance with the relevant conditions of the Approval and is undertaken by an Independent Third Party Consultant.

The monthly attended noise survey comprises one night measurement at each location and the duration of each measurement must be 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) must be, where possible, measured directly, determined by frequency analysis, calculated based on number of events (of known level) and duration, or, a combination of those methods. 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, LAmax, LAmin, LA1, LA10, LA50 and LA90; and
- Weather conditions including temperature, relative humidity, wind speed average and maximum, wind direction and estimated cloud cover.

Attended monitoring is used to determine compliance with the noise criteria in Table 2 of Schedule 3.

9.5 Meteorological Monitoring

Real-time data from on-site Automatic Weather Station (AWS) is made available to the Open Cut Examiner to assist in operational monitoring and real time response. Additional AWS are situated around the mining operations area which provide representative weather data for the surrounding privately owned residential areas, in the event that the onsite AWS data is unavailable the 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 NSW Industrial Noise Policy, 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;
- In the event that WS09 & WS10 are not available, the use of sigma theta and wind speed will be used to categorise inversion strength.

9.6 Monitoring Locations

Attended monitoring locations are as detailed in Table 4. They are located in each residential assessment zone specified in the Environmental Assessment and Project Approval 09_0062 (see Appendix 2).

Table 4 Residential Assessment Zones

Site No	Location	Type	Coordinates	Requirement	Purpose
NP04	Balmoral Road	Attended	E. 304285 N. 6421976	Statutory	Determine noise levels east of operation (Zone A- Antiene Estate)
NP07	Racecourse	Attended	E. 299169 N. 6426451	Statutory	Determine noise levels north-north east of operation (Zone C – Racecourse Road)
NP10	South Muswellbrook	Attended	E. 301592 N. 6425956	Statutory	Determine noise levels north east of operation (Zone E – South Muswellbrook)
NP12	Pamger Drive	Attended	E. 305525 N. 6422260	Statutory	Determine noise levels east of operation (Zone G – East Antiene)
NP13	Golden Highway	Attended	E. 292409 N. 6409175	Statutory	Determine noise levels south of the operation (Zone H – South of Mine)
NP14	Roxburgh Road	Attended	E. 289305 N. 6423365	Statutory	Determine noise levels east of operation (Zone D – Roxburgh Rd)
NP15	Wellbrook	Attended	E. 290285 N. 6422256	Statutory	Determine noise levels east of operation (Zone D - /F – Denman Road West)
NP16	Skelletar North	Attended	E. 299747 N. 6426810	Statutory	Determine noise levels north east of operation (Zone B – Skelletar 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:

1. Mining noise is typically inaudible during the day period, particularly once the ground heats up (daytime is usually a compliance period);
2. Received levels of mining noise usually varies greatly from one night to the next at any receptor location;
3. 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);
4. 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);
5. The received mining noise spectrum generally does not have any significant content (if any) above 1000 Hertz; and
6. 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, low pass (LP) L_{Aeq} can be used to more accurately measure mining noise.

Table 5 outlines noise mitigation measures that are implemented dictated by the source, who implements the changes and how often this is undertaken. In the event of that meteorological conditions mean the criteria does not apply, the below measures will continue to be implemented in order to maintain all reasonable and feasible control measures.

Table 5 Noise Mitigation Measures

Source	Noise Mitigation Measures	Responsibility	Timing
Open cut mining using shovels, excavators and haul trucks	- 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).	Mine Planning and Mining	As required
Haul Rd maintenance and other maintenance activities	- Modify dozer operations - Modify dumping operations - Modify hauling operations	Mining	As required
Coal processing and transporting	- Noise fencing along rail spur and conveyor corridor.	Processing	Ongoing
Overburden shaping using dozers	- 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).	Mine Planning and Mining	As required

9.7 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 9.2.2 Attended Monitoring Method and Appendix 10 of PA 09_0062 MOD 1. In conjunction with this, continuous unattended monitoring is undertaken as outlined in Section 9.2.1.

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.

Expert noise modelling consultants have provided advice that Traffic Noise is a low risk for Mt Arthur Coal, however an assessment will be undertaken on a 36M basis to determine compliance with the Traffic Noise Criteria in Schedule 3 Condition 6. The purpose of this assessment will be to predict the current traffic noise generated by the Mt Arthur Mine Complex along Thomas Mitchell Drive and Denman Roads and compare the results from attended monitoring against the Mines noise consent conditions. Based on results from consultant assessment Mt Arthur Coal will take all reasonable and feasible measures to ensure that the traffic noise generated by the Mt Arthur mine complex does not exceed the traffic noise impact assessment criteria in Table 3 of PA09_0062.

Traffic noise level changes over time due to planned operations at Mt Arthur Coal are, at worst, were predicted to result in an increase of less than 2 dB (based on a 32 Mtpa production rate), which should not be humanly detectable. Current production is approx. 20Mtpa with a relative traffic component to this lower production rate. If a complaint is received regarding traffic noise, Mt Arthur Coal will conduct an investigation to identify Mt Arthur Coal's contribution to the noise and determine if mitigation actions are required. There are various controls already in place in order to reduce traffic noise, such as a rigorous introduction to site process for light vehicles, this ensures that all light vehicles are serviced and maintained sufficiently including the maintenance of mufflers and installation of noise reduced reversing alarms. Other examples of mitigation measures that could be deployed are; minimising traffic at high risk periods of the day and installation of further bunding.

Table 3: Traffic noise criteria dB(A)

Road	Day/Evening $L_{Aeq\ (1\ hour)}$	Night $L_{Aeq\ (1\ hour)}$
Thomas Mitchell Drive, Denman Road (east of Thomas Mitchell Drive)	60	55
Denman Road (west of Thomas Mitchell Drive)	55	50

Note: Traffic noise generated by the Mt Arthur mine complex is to be measured in accordance with the relevant procedures in the EPA's Road Noise Policy (2011), or its latest version.

9.8 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 mine'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. LAeq (15min) will also be determined for all noise sources, with the exception of cases where the LAeq (15min) is non-measureable.

Assessment of impact is to include consideration of mining activity and atmospheric conditions during each measurement. Wind speed and/or estimated temperature inversion conditions may result in regulatory criteria not being applicable in accordance with the NSW INP. LAeq (15min) and LA1(1min) results generated by Mt Arthur Coal will be compared to regulatory limits.

9.9 Exceedance Protocol

In the event of a potential exceedance the independent consultant will:

1. Contact MAC OCE and inform them of potential exceedance.
2. Conduct a re-measure within 75 minutes of the initial measurement. In this time MAC OCEs have the responsibility to address noise issues regardless of meteorological conditions.
3. Contact MAC OCE and inform them of the result of the re-measure.

Subject Matter Experts may be engaged to provide expert analysis and interpretation of results as part of an investigation into an exceedance of impact assessment criteria. Investigation includes estimating the contribution from Mt Arthur Coal mining activities and the recording of the reasonable and feasible mitigation measures implemented ensuring meteorological conditions at the time are taken into account. The method for estimating the incremental contribution from Mt Arthur Coal mining activities includes determining the sources of noise based on characteristics.

9.10 Contingency Plan

The Mt Arthur Coal real time monitoring system automatically provides alarms to site personnel if noise levels are approaching regulatory limits as defined in Table 2. The TARP is the process to be followed by Supervisors and/or OCEs where there are unpredicted noise impacts. 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. Implementation of this system and process should cater for most situations where there are unpredicted noise impacts, and, represents Best Available Technology Economically Achievable.

9.11 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 in regard to 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. During appropriate seasonal conditions, Mt Arthur Coal will examine the correlation between weather conditions and noise levels to allow procedures to be developed for the proactive management of predicted noise impacts based on the prediction of noise levels in relevant weather conditions.

9.12 Incidents

An incident is defined when noise contribution from Mt Arthur Coal mining activities exceeds the criteria included in Table 1 as identified by independent consultants in compliance attended monitoring. A notification will be provided to the DPIE immediately or after becoming aware of an exceedance of the criteria included in Table 1. A written report on the incident will be provided to the DPIE and any other relevant agencies within 7 days of becoming aware of the incident (or as otherwise directed by the DPIE).

9.13 Complaint Handling

Upon receipt of a complaint from the community, preliminary investigations will commence on or by the next business day to determine the likely causes of the complaint using information such as the prevailing climatic conditions, the nature of activities taking place and recent monitoring results. 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 Arthur Coal website (https://www.bhp.com/environment/regulatory-information).

10 Review and Reporting

10.1 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. This requires that this is undertaken within 3 months of:

- The submission of the Annual Review;
- The submission of an incident report;
- The submission of an audit; and
- Any modifications to the conditions of the Approval.

If necessary this NMP will be revised to incorporate any recommended measures to improve the environmental performance of Mt Arthur Coal resulting from audits, community complaints (Section 9.7) and incident investigation findings (Section 9.6). 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.

10.2 Reporting

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

- Reporting of noise monitoring results, evaluating and comparing against impact assessment criteria;
- Noise related complaints and management/mitigation measures undertaken;
- Management/mitigation measures undertaken in the event of any confirmed exceedance of the impact assessment criteria; and
- Review of the effectiveness of management/mitigation measures and the monitoring program.

Mt Arthur Coal will also report attended noise monitoring results monthly on the BHP Mt Arthur Coal website (https://www.bhp.com/environment/regulatory-information) within 14 days of receiving final environmental monitoring data required.

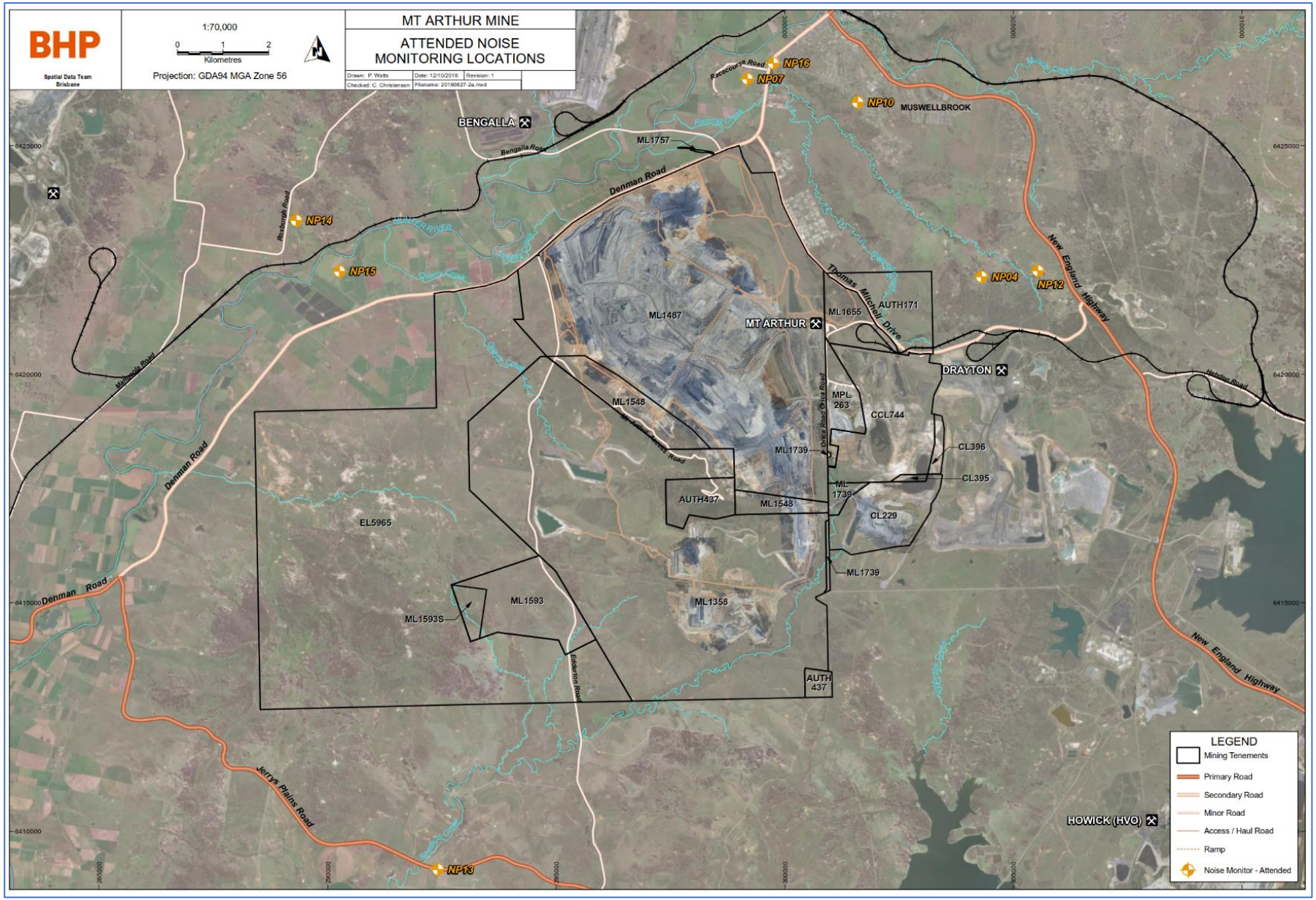
11 Version History

Note:

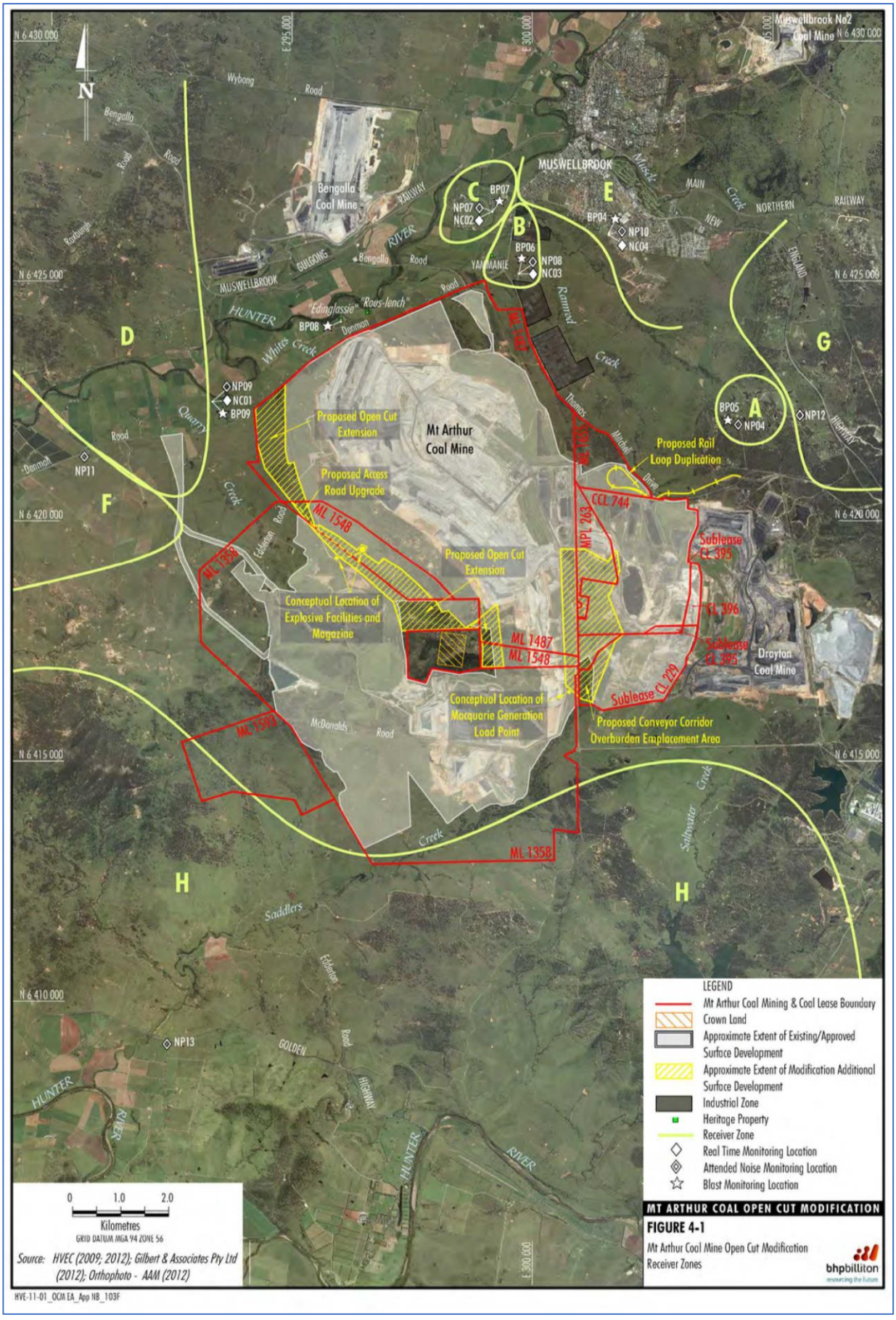
- **Major** versions (1.0, 2.0 etc.) are for changes after a significant event / incident or for a periodic review of the document.
- **Minor** versions (1.1, 1.2 etc.) are for small changes to a page or pages within a document.

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*

Appendix 1 – Monitoring Locations Plan



Appendix 2 – Residential Assessment Zones (Appendix 5 PA 09_0062 MOD 1)



NB: Sites NP14 and NP15 fall outside of mapped area, please refer to Appendix 1 for locations and Table 4 for zoning areas.

Appendix 3 - Noise Trigger Action Response Plan (TARP)

Trigger	Business as Usual Mining	Alert Level 2– Site Specific Trigger[1] (as outlined in Table 2)	Alert Level 3 – Compliance Monitoring exceedance
Action Response Plan	**Standard control measures include:** **1. Controlling noise at the source;** • 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 **2. Controlling noise transmission;** • 40 metre high bund adjacent the washery • 4.2 kilometre long bund to reduce pit activity noise • Noise fencing along rail spur	MAC use logged LAeq levels at unattended directional loggers situated around the mine. These loggers alert when the impact assessment criteria is exceeded for two 15 minute readings. All noise sources are included in this alert. MAC-ENC-PRO-056 Noise Management Procedure details the implementation and utilisation of the Noise TARP including roles and responsibilities. Following the notification: **1. The OCE will assess all noise levels and sources;** **2. The OCE will determine reasonable and feasible mitigation measures from available controls based on the outcome of the inspection, these will be any of the following:** - Modifying dozer operations - Modifying dumping operations; - Modifying hauling operations. **3. The OCE will respond to the alert using the text response line;** **4. The OCE will continue to monitor operational noise.**	In the event of an exceedance the independent consultant will contact MAC personnel to inform them of the exceedance, following this MAC has 75 minutes to lower noise emissions below the criteria before an official non-compliance is considered. Following the notification: **1. The OCE will assess all noise levels and sources;** **2. The OCE will determine reasonable and feasible mitigation measures from available controls based on the outcome of the inspection, these may be any of the following:** - Shutting down dozer operations - Altering dumping operations; - Altering hauling operations. **3. The OCE will continue to monitor operational noise and wait feedback from consultant** **4. If non-compliance is recorded, the event is reported the following business day and an investigation begins.**

[1] Real time monitoring as per Alert Level 2 is a cumulative indication that includes all background noise and Mt Arthur contribution.

Appendix 4 - Conditions Compliance Tables

Table 4 : Development Consent (09_062) relevant conditions

<table>
<tr><th>Condition Number</th><th>Environmental Performance Condition</th><th>Addressed within</th></tr>
<tr><td colspan="3">Development Consent (09_062)</td></tr>
<tr><td>Schedule 3
Condition 2</td><td>NOISE
Impact Assessment Criteria
The Proponent shall 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.

Table 2: Noise Impact Assessment Criteria dB(A)
<table><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><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></table>Note: To interpret the locations referred to Table 2, see the applicable figures in Appendix 4 and Appendix 5.

Noise generated by the Mt Arthur mine complex is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy. Appendix 10 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Proponent has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.</td><td>Section 9.1,
Section 9.2,
Section 9.3,
Section 9.4.</td></tr>
<tr><td>Schedule 3
Condition 6</td><td>Traffic Noise Criteria
The Proponent shall take all reasonable and feasible measures to ensure that the traffic noise generated by the Mt Arthur mine complex does not exceed the traffic noise impact assessment criteria in Table 3.
Table 3: Traffic noise criteria dB(A)
<table><tr><th>Road</th><th>Day/Evening $L_{Aeq\ (1\ hour)}$</th><th>Night $L_{Aeq\ (1\ hour)}$</th></tr><tr><td>Thomas Mitchell Drive, Denman Road (east of Thomas Mitchell Drive)</td><td>60</td><td>55</td></tr><tr><td>Denman Road (west of Thomas Mitchell Drive)</td><td>55</td><td>50</td></tr></table>Note: Traffic noise generated by the Mt Arthur mine complex is to be measured in accordance with the relevant procedures in the EPA's Road Noise Policy (2011), or its latest version.</td><td>Section 9.7</td></tr>
<tr><td>Schedule 3
Condition 8</td><td>Operating Conditions
The Proponent shall:
(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;
(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 approval;
(c) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply (see Appendix 10);
(d) co-ordinate noise management at the Mt Arthur mine complex with the noise management at the Drayton and Bengalla mines to minimise cumulative noise impacts; and</td><td>Section 5 (a)
Section 6 (d)
Section 8.1.1 (b)
Section 8.1.2 (b)
Section 8.1.3 (b)
Section 8.1.4 (b)
Section 9.6 (c)</td></tr>
</table>

Condition Number	Environmental Performance Condition	Addressed within
Development Consent (09_062)		
	(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 approval, to the satisfaction of the Secretary.	
Schedule 3 Condition 9	**Noise Management Plan** The Proponent shall prepare and implement a Noise Management Plan for the Mt Arthur mine complex to the satisfaction of the Secretary. This plan must: (a) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this approval; (b) describe the proposed noise management system in detail; and include a monitoring program that: - evaluates and reports on: - the effectiveness of the noise management system; - compliance against the noise criteria in this approval; 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 approval and trigger for further attended monitoring); and - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.	Section 8 (a) Section 9 (b)
Schedule 5 Condition 2	**Management Plan Requirements** The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include: a) detailed baseline data; b) a description of: - 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 project 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: - 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 project over time; g) a protocol for managing and reporting any: - 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 7.1.1 (c) Section 7.1.2 (c) Section 7.1.3 (c) Section 9.10 (e) Section 9.9 (g) Section 9.11 (b) (f) Section 9.12 (g) Section 9.13 (g) Section 10 (d)
Schedule 5 Condition 7	**Incident Reporting** The Proponent shall immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	Section 9.12
Schedule 5 Condition 11	**ACCESS TO INFORMATION** From the end of December 2010, the Proponent shall: a) make the following information publicly available on its website: - a copy of all current statutory approvals for the project; - 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 Proponent'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 10

Condition Number	Environmental Performance Condition	Addressed within
Development Consent (09_062)		
Appendix 10 Condition 1	**APPENDIX 10: NOISE COMPLIANCE ASSESSMENT** **Applicable Meteorological Conditions** 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 5 m/s; (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.	Section 9.1
Appendix 10 Condition 2	**Determination of Meteorological Conditions** Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station on or in the vicinity of the site.	Section 9.5
Appendix 10 Condition 3	**Compliance Monitoring** Attended monitoring is to be used to determine compliance with the relevant conditions of this Approval.	Section 9.4
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. *Note: The Secretary may direct that the frequency of attended monitoring increase or decrease at any time during the life of the project.*	Section 9.4
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 Industrial Noise Policy (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 date, 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 9.4

Table 5 Environmental Protection Licence EPL11457 relevant conditions

<table>
<tr><th>Condition Number</th><th>Environmental Performance Condition</th><th>Addressed within</th></tr>
<tr><td>EPL11457</td><td></td><td></td></tr>
<tr><td>P1.4</td><td>The following points referred to in the table below are identified in this licence for the purposes of weather and/or noise monitoring and/or setting limits for the emission of noise from the premises.
Noise/Weather
<table><tr><th>EPA identification no.</th><th>Type of monitoring point</th><th>Location description</th></tr><tr><td>7</td><td>Air blast overpressure & ground vibration peak particle velocity monitoring</td><td>Monitoring location BP04 identified as point 15 in the document titled "EPA - Plan of Premises Monitoring Points Drawing No.322403" dated 17/10/16 EPA ref DOC16/527575</td></tr><tr><td>8</td><td>Air blast overpressure & ground vibration peak particle velocity monitoring</td><td>Monitoring location BP07 identified as point 12 in the document titled "EPA - Plan of Premises Monitoring Points Drawing No.322403" dated 17/10/16 EPA ref DOC16/527575</td></tr><tr><td>9</td><td>Air blast overpressure & ground vibration peak particle velocity monitoring</td><td>Monitoring location BP09 identified as point 9 in the document titled "EPA - Plan of Premises Monitoring Points Drawing No.322403" dated 17/10/16 EPA ref DOC16/527575</td></tr><tr><td>10</td><td>Air blast overpressure & ground vibration peak particle velocity monitoring</td><td>Monitoring location BP11 identified as point 20 in the document titled "EPA - Plan of Premises Monitoring Points Drawing No.322403" dated 17/10/16 EPA ref DOC16/527575</td></tr></table></td><td>Section 4.2</td></tr>
<tr><td>L5.1</td><td>Operational noise from the premises must not exceed:</td><td>Section 9</td></tr>
</table>

<table>
<tr><th>Condition Number</th><th>Environmental Performance Condition</th><th>Addressed within</th></tr>
<tr><td></td><td>
<table>
<tr><th>LOCATION</th><th>PERIOD</th><th>NOISE LIMITS (LAeq (15 minute) dB(A)</th><th>Night (LAeq (1 Minute)</th></tr>
<tr><td>South of mine</td><td>Day / Evening / Night</td><td>35 / 35 / 35</td><td>45</td></tr>
<tr><td>Antiene Estate</td><td>Day / Evening / Night</td><td>37 / 40 / 38</td><td>45</td></tr>
<tr><td>Racecourse Road</td><td>Day / Evening / Night</td><td>41 / 40 / 39</td><td>45</td></tr>
<tr><td>Denman Road North-West, Roxburgh Vineyard (north-east), Roxburgh Road</td><td>Day / Evening / Night</td><td>37 / 36 / 35</td><td>45</td></tr>
<tr><td>Skellatar Stock Route, Thomas Mitchell Drive, Denman Road East</td><td>Day / Evening / Night</td><td>39 / 38 / 37</td><td>45</td></tr>
<tr><td>East Antiene</td><td>Day / Evening / Night</td><td>41 / 40 / 39</td><td>45</td></tr>
<tr><td>Denman Road West, Roxburgh Vineyard (west)</td><td>Day /Evening/ Night</td><td>37 / 36 / 35</td><td>45</td></tr>
<tr><td>South Muswellbrook</td><td>Day /Evening /Night</td><td>39 / 39 / 39</td><td>45</td></tr>
</table>
Note: Definitions: 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.
• Day means 7am to 6pm;
• Evening means 6pm to 10pm; and
• Night means 10pm to 7am
</td><td></td></tr>
<tr><td>M4.1</td><td>Every 12 months the licensee must monitor noise from the premises in accordance with condition L5 to determine compliance with the limits specified in condition L5.1.</td><td>Section 9.4</td></tr>
<tr><td>M6.1</td><td>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.</td><td>Section 9.11</td></tr>
<tr><td>M6.2</td><td>The record must include details of the following:
a) the date and time of the complaint;
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.</td><td>Section 9.11</td></tr>
</table>

Appendix 5 – Letter of acceptance

Planning, Industry & Environment

Mr James Nixon
Principal HSE
BHP – Mount Arthur Coal

By email: james.nixon@bhp.com

17/07/2020

Dear Mr Nixon

Mount Arthur Coal Mine (09_0062)
Noise Management Plan

I refer to your recent correspondence submitting a revised copy of the Noise Management Plan as required by condition 9 of Schedule 3 of the Mt Arthur Coal Mine approval (PA 09_0062).

The Department has reviewed the revised Noise Management Plan and considers that it now adequately addresses the requirements of the relevant conditions of the approval. Consequently, the Secretary approves the Mt Arthur Noise Management Plan (Version 3.2, dated July 2020).

Please ensure a copy of the approved plan is made available on your website at your earliest convenience.

If you wish to discuss the matter further, please contact Melanie Hollis on 8217 2043.

Yours sincerely

Matthew Sprott
Director
Resource Assessments (Coal & Quarries)

as nominee of the Planning Secretary