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WHC_PLN_ROC_ROAD TRAFFIC NOISE MANAGEMENT PLAN

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ACRONYMS USED THROUGHOUT THIS DOCUMENT

AEMR - Annual Environmental Management Report

AS - Australian Standard

CCC - Community Consultative Committee

DoPI - Department of Planning and Infrastructure

DRE - NSW Department of Trade and Investment, Regional Infrastructure

and Services - Division of Resources and Energy

EA - Environmental Assessment

EPA - Environment Protection Authority

EPL - Environment Protection Licence

GSC - Gunnedah Shire Council

ML - Mining Lease

RCM - Rocglen Coal Mine

RTNMP - Road Traffic Noise Management Plan



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1 <u>INTRODUCTION</u>

The Rocglen Coal Mine (RCM) is located approximately 28km north of Gunnedah, and 10km west of the Canyon Coal Mine (formerly Whitehaven) (Figure 1). The mine site covers an area of approximately 460 hectares within Mining Lease (ML) 1620 and Mining Purposes Lease (MPL) 1662.

The mine was initially approved on the 15th April 2008 under PA 06_0198 with a minor modification (PA 06_0198 MOD 1) granted in May 2010 to address highwall stability issues. Whitehaven submitted a Project Application, and accompanying Environmental Assessment, under Part 3A of the *Environmental Planning and Assessment Act 1979* in March 2010. PA 10_0015 was issued on the 27th September 2011 and allows for additional extraction of up to 5 million tonnes of coal at a maximum recovery rate of 1.5 million tonnes per annum (ie. increased projected life of the operation for coal extraction by up to four years).

It is recognised that activities associated with the operation of the mine have the potential to generate noise impacts on surrounding properties and residences. In order to manage the potential noise impacts, and in compliance with Schedule 3, Condition 4(c) of PA 10_0015, this Road Traffic Noise Management Plan (RTNMP) has been developed. The RTNMP has been developed as a separate plan to the Noise Management Plan (NMP) but is referred to in the NMP.

The RTNMP has been prepared with reference to relevant legislation, approvals and guidelines, follows the management plan requirements specified in Schedule 5, Condition 2 of PA 10_0015 and is consistent with the following documents:

- Rocglen Coal Mine Extension Project Environmental Assessment February 2011 ("Extension EA") – specifically Section 7.3; and
- Appendix Q of the Extension EA Noise and Blasting Vibration Impact Assessment.

The RTNMP presents the relevant conditions of the PA 10_0015 (see Section 2) and includes noise controls and management procedures (Section 3) to assist with compliance with noise criteria identified in Section 2. Section 5 presents the specific features of the noise monitoring program including monitoring locations, parameters measured and frequency of monitoring whilst Section 6 includes procedures for addressing complaints, exceedances and non-compliances.

The Rocglen Coal Mine Modification Environmental Assessment and previous Annual Environmental Management Reports (AEMRs) for the site should be referred to for baseline data.

This management plan also assesses the road noise contribution from Tarrawonga operations as required under the Project Approval. As a consequence, road noise monitoring is undertaken on Blue Vale Road south of the Rocglen access road which ensures monitoring is undertaken of the cumulative effects of both Rocglen and Tarrawonga loaded coal trucks. The monitoring report makes no attempt to identify individual truck load points.



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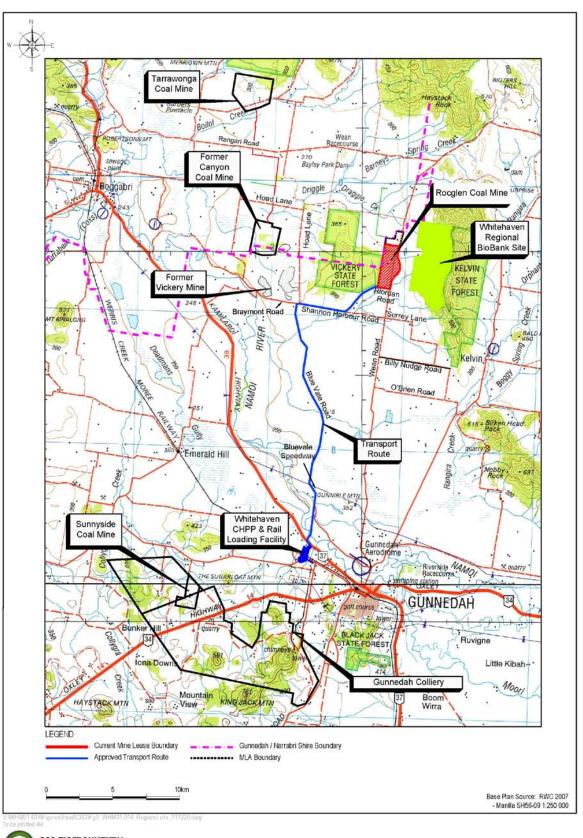




Figure 1 Rocglen Coal Mine Location



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2 **STATUTORY REQUIREMENTS**

The Project Approval conditions of PA 10_0015 provide the following requirements for coal haulage:

Road Traffic Noise Criteria

3(2) The Proponent shall ensure that the road traffic noise generated by the project and the Tarrawonga coal mine does not exceed the criteria in Table 2.

Table 2: Road Traffic noise impact criteria dB(A)L _{Aeq(1hour)} Location	Day	Evening	Night
Any residence on privately owned land	55	55	50

Note: Road traffic noise is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Road Traffic Noise Policy

Operating Conditions

- 3(3) The Proponent shall:
- (a) Implement best practice noise management to minimise the operational, low frequency, and road traffic noise generated by the project;
 - (b) Minimise the noise impacts of the project during temperature inversions; and
 - (c) Regularly assess the real time noise monitoring and meteorological forecasting data and relocate, modify and/or stop operations on site to ensure compliance with the relevant conditions of this approval, to the satisfaction of the Director General.

Noise Management Plan

- 3(4) The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director General. This plan must:
 - (a)be prepared in consultation with OEH, and submitted to the Director General for approval by the end of December 2011;
 - (b)describe the noise mitigation measures that would be implemented to ensure compliance with the relevant conditions of this approval;
 - (c)Include a Road Traffic Noise Management Plan that has been prepared in consultation with the operators of the Tarrawonga Coal Mine; and (d)include a noise monitoring program that:
 - uses a combination of real time and supplementary attended monitoring to evaluate the performance of the project; and
 - includes a protocol for determining exceedances of the relevant conditions of this approval

Road Maintenance



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3(26) During the project, the Proponent shall contribute towards the maintenance of the public roads used by the project, in accordance with the existing road maintenance agreement between the Proponent and Council.

Operating Conditions

- 3(28) The Proponent shall transport all coal from the site to the Whitehaven Siding coal handling and preparation plant by road, using only the designated transport route shown in Figure 1 of Appendix 2.
- 3(29) The Proponent shall only dispatch coal from the site by road between the hours of:
 - (a) 7 am to 9.15 pm, Monday to Friday;
 - (b) 7 am to 5.15 pm Saturday; and
 - (c) at no time on Sundays and public holidays.

Monitoring of Coal Transport

- 3(30) The Proponent shall:
 - (a) keep accurate records of the amount of coal transported (on a monthly basis) from the site, as well as the number of coal truck movements generated by the project; and
 - (b) make these records publicly available on its website at the end of each calendar year.

Schedule 2 of PA 10_0015 also comprises the following relevant condition:

- 2(11) The Proponent shall ensure that all plant and equipment used on site, or to transport coal from the site, is:
 - (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

All road construction associated with the Project was undertaken in accordance with the requirements of Gunnedah Shire Council and the Roads and Traffic Authority as the roads authorities relevant to the Rocglen coal haulage route.

The coal transport contractor is responsible for ensuring its coal haulage fleet is compliant with the POEO (Noise Control) Regulation 2008 and any other requirements associated with operations on the public road network.

2.1 Noise Criteria

In order to manage the potential road noise impacts, and in compliance with Schedule 3, Condition 4 of PA 10_0015, this RTNMP has been developed.

Noise impact assessment criteria for the development were established in the Extension EA using relevant EPA guidelines. These criteria have been incorporated in PA 10_0015 Schedule 3, Condition 2 which states:

The Proponent shall ensure that the road traffic noise generated by the project and the Tarrawonga coal mine does not exceed the criteria in Table 2.



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Table 2: Road traffic noise impact criteria dB(A) LAeq (1 hour)

Location	Day	Evening	Night
Any residence on privately- owned land	55	55	50

Note: Road Traffic Noise is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Road Traffic Noise Policy.

3 NOISE CONTROLS AND MANAGEMENT PROCEDURES

The following general actions or strategies will be implemented to minimise the potential for road transport noise impacts at residential receivers.

- Coal transportation will be undertaken via the approval haulage route between Rocglen and the Whitehaven CHPP.
- Coal transport will be undertaken between the approved times of 7am and 9:15pm Monday to Friday, and between 7am and 5:15pm on Saturdays.
- All trucks are speed limited to 93 km per hour to, amongst other things, minimise engine noise.
- On school days, Whitehaven will maintain the communication system between
 the truck drivers and the local school bus driver. The system has been
 negotiated between Whitehaven and the local bus drivers and involves two-way
 radio communication to ensure that trucks do not exceed 40 km per hour when
 travelling in the vicinity of the school bus.
- All trucks transporting coal from the mine and backloading reject from the Whitehaven CHPP will be covered with fitted roll-over tarpaulins.
- All trucks transporting coal will be well maintained to ensure optimal operation, which will minimise the potential for noise emissions.
- Drivers will be instructed to operate in accordance with an existing Transport Policy and Code of Conduct, which identify aspects such as travelling speeds, general behaviour, avoidance of exhaust brakes, load coverage, complaints and disciplinary procedures. The Policy and Code apply to all employee and contractor-owned vehicles.
- The on-going use of the road network will be covered under the arrangements of the existing road maintenance agreement with Gunnedah Shire Council to ensure the subject roads continue to be adequately maintained.

The controls and management procedures will be reviewed in response to the results of noise monitoring, complaints or comments identified through Rocglen's consultation effort. Any changes made will be noted as part of annual environmental reporting in the AEMR/Annual Review.

Compliance with coal transport being undertaken within specified hours is achieved by the contractor being fully conversant with Project Approval requirements and timing of coal transport. This timing is included in the contract provided to the transport operator. Coal



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haulage outside of approved hours is also not possible as coal loading shift times correspond with coal haulage hours.

The Code of Conduct for coal transport is provided to drivers on commencement of operations with the transport contractor.

Road maintenance requirements are confirmed with the Gunnedah Shire Council through regular reviews of road condition undertaken by the Whitehaven Project Development Manager with the relevant Council personnel.

4 COMMUNITY CONSULTATION

Community consultation will continue throughout the life of the mine, with RCM addressing any concerns raised by the local community in a timely and efficient manner.

The Rocglen Community Consultative Committee (CCC) has been established to address any concerns raised by local members of the community. The CCC will continue to operate in accordance with Schedule 5, Condition 5 of PA 10 0015:

The Proponent shall operate a Community Consultative Committee (CCC) for the project in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version), and to the satisfaction of the Director-General.

Notes

- The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval; and
- In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Proponent, Council and the local community.

5 MONITORING PROGRAM

This section outlines the monitoring and reporting requirements to measure the impacts and environmental performance of the mine and the effectiveness of road noise management measures.

5.1 Monitoring Locations

Product coal transportation noise compliance monitoring is operator attended in order to accurately determine the noise contribution from the road transportation alone. Road noise monitoring will continue to be conducted at the nearest residential locations to the transport route that are potentially affected by cumulative road noise from traffic generated by the Rocglen and Tarrawonga mines, as listed in Table 1.



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Table 1	Road Noise Monitoring Locations
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RECEIVER NAME	LAND OWNER	DISTANCE ¹	ROAD TYPE	CRITERION (DAY/EVENING)	CRITERION (NIGHT)
"Brooklyn (1)"	R. Kelly	90m	Public	55 dB(A), L _{Aeq(1 hour)}	50 dB(A), L _{Aeq(1 hour)}
"Brooklyn (2)"	R. Kelly	480m	Public	55 dB(A), L _{Aeq(1 hour)}	50 dB(A), L _{Aeq(1 hour)}
"Werona"	WM & KL Campbell	320m	Public	55 dB(A), L _{Aeq(1 hour)}	50 dB(A), L _{Aeq(1 hour)}

¹ Distance from residence to nearest point on the coal transport route.

Both residences on the "Brooklyn" property are occupied and road noise monitoring will initially be conducted at both residences. Road traffic noise modelling for the Project, and previous monitoring conducted for the Canyon (Whitehaven) and Tarrawonga mines, has identified road noise levels below, but close to, the criterion at the "Brooklyn (1)" residence. If the monitoring confirms that road traffic noise levels at "Brooklyn (2)" are below the criterion at all times, then approval may be sought from EPA and DoPI to discontinue monitoring at this receiver.

5.2 <u>Attended Noise Survey Procedure</u>

Attended noise surveys will be conducted as follows.

- All noise investigations will be carried out in accordance with NSW Industrial Noise Policy (INP, 2000), NSW Road Noise Policy and applicable Australian Standards.
- 2. Noise levels will be measured in one-third octave bands using an instrument with IEC Type 1 characteristics as defined in AS 1259-1990 "Sound Level Meters". The instrument will have current calibration as per manufacturer's instructions and field calibration will be confirmed before and after measurements with a sound level calibrator.
- 3. The instrument will be set to A-weighting, "fast" response mode and measurements of $L_{\text{Aeq(1 hour)}}$ will be taken at each location in Table 1. Each measurement will be stored at a sampling rate of no greater than 2 seconds for further analysis.
- 4. Attended road noise surveys will be conducted on a 6 monthly basis, and staggered each year in order to assess impacts over different times of the year (cooler and warmer months). One full one-hour measurement of road noise will be taken at each location in Table 1 during either the morning between 7:00 am and 9:30 am or the evening period after 6.00 pm. In keeping with the approved coal transport times, any measurements on Saturdays would be conducted during the morning period.



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- 5. Field notes will be taken during each road noise measurement recording the time and number of truck pass-bys, and all extraneous noise sources.
- Extraneous noise sources will be filtered from the measured signal using suitable software acceptable to EPA (such as Bruel & Kjaer "Evaluator" Software) and the noise level attributable to coal trucks will be identified and compared with the relevant criteria.
- 7. If an individual truck seems particularly loud or has an observable fault resulting in elevated noise emissions, this will be recorded in the field notes.
- 8. The monitoring report will include, as a minimum:
 - the total number of trucks counted during the noise measurement (identified as empty or full);
 - the total measured L_{Aeq (1 hour)} from coal trucks;
 - the total measured L_{Aeq (1 hour)} from all sources to allow comparison of contribution from coal haul trucks comparative to other sources.
 - details of any identified noisy truck(s);
 - o details of the calculation methodology; and
 - wind speed and directional data and a discussion of potential meteorological influence on noise levels during each measurement period.

5.3 Monitoring Frequency

Road noise monitoring will be undertaken on a six monthly basis and will assess cumulative noise impacts from the Rocglen and Tarrawonga transport activities against road noise compliance criteria.



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6 MANAGEMENT OF EXCEEDANCES, COMPLAINTS AND NON-COMPLIANCE

6.1 <u>Noise Compliance Criteria Exceedance</u>

If road noise exceeds the levels outlined in Section 2, advice will be sought from an appropriate acoustic consultant to verify the source of the elevated noise and identify options to address noise related impacts. Such actions may include:

- Additional testing to confirm the elevated noise is systemic in nature;
- Consideration to changes to operational procedure or equipment type; and
- The installation of sound attenuation measures to plant and equipment, where necessary.

Where it is identified that the above options cannot achieve compliance with noise criteria, RCM will undertake negotiations with the affected landowners with a view to entering into private agreements. Such negotiations would include options with regard to provision of insulation, double-glazing of windows, air-conditioning, or other measures designed to reduce noise impact at the affected property.

6.2 Complaints

Whilst all endeavours will be made by RCM to avoid adverse noise impacts on local landowners / residents, it is acknowledged that from time to time such impacts may occur. In order to ensure an appropriate and consistent level of reporting, response and follow-up to any complaints is adopted by RCM, the following complaints management protocol will be followed:

- A publicly advertised telephone complaints line will be in place to receive complaints during operating hours and record complaints at other times.
- Each complaint received will be recorded on a Complaints Register, which will include the following details:
 - The date and time of complaint.
 - Any personal details the complainant wishes to provide or if no such details are provided a note to that effect.
 - The nature of the incident that led to the complaint.
 - The action taken by RCM in relation to the complaint, including any follow-up contact with the complainant.
 - o If no action was taken by RCM, the reason why no action was taken.
- The Environmental Manager will be responsible for ensuring that an initial response is provided within 24 hours of receipt of a complaint (except in the event of complaints recorded when the mine is not operational).



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- Data from the site weather station and the real time noise monitoring unit will be obtained for the time applicable to the complaint for use in determination of cause and identification of future remedial actions.
- Additional measures will be undertaken as required to address the complaint.
 This may include visiting the complainant, or inviting the complainant to the mine site.
- Once the identified measures are undertaken, the Environmental Manager will sign off on the relevant complaint within the Complaints Register.
- If necessary, follow-up monitoring will take place to confirm the source of the complaint is adequately mitigated.
- A copy of the Complaints Register will be kept by RCM and made available to the CCC and the complainant (on request). A summary of complaints received every 12 months will be provided to DoPI, GSC, EPA, DRE and the CCC through the AEMR/Annual Review.

Based on the nature of individual complaints, specific contingency measures may be implemented to the (reasonable) satisfaction of the complainant. The Environmental Manager retains ultimate responsibility to ensure that complaints received are properly recorded and addressed appropriately.

6.3 Non- Compliance

With the exception of noise compliance criteria exceedances, non-compliances relating to noise would most likely relate to not achieving the required six monthly attended monitoring events. Any non-compliances of this nature will be detailed in the EPL Annual Return and/or AEMR/Annual Review, and include details as to why the non-compliance occurred.

6.4 Unpredicted Impact Protocol

In the event that unpredicted or unforeseen noise impacts are identified, the following protocol will be adopted.

Table 2 Unpredicted Impact Protocol

Table 2 Chprodicted impact i Totocci	
Step	Procedure
1	Review the unpredicted impact including consideration of: • Any relevant monitoring data; and • Current mine activities as well as activities in the vicinity of the issue.
2	Commission an investigation by an appropriate specialist into the unpredicted impact, if considered appropriate.
3	Develop appropriate ameliorative measures based on the results of the above investigations, in consultation with relevant government departments.
4	Implement additional monitoring, where relevant, to measure the effectiveness of the improvement measures.



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7 RECORD KEEPING AND REPORTING REQUIREMENTS

7.1 Record Keeping

Attended noise monitoring reports issued by the acoustic consultant will include details on the date and time of monitoring, location of monitoring and monitoring personnel.

Results from the attended monitoring will be maintained by the Environmental Officer. The results will be reviewed to determine any mining related exceedances in order to instigate an appropriate response.

7.2 Reporting Requirements

A summary of noise monitoring results will be reported internally on a monthly basis as well as on a quarterly basis to the Community Consultative Committee (CCC) via the Environment Monitoring Report. This report will be periodically uploaded onto the company's website (www.whitehavencoal.com.au).

Each year, the results of the noise monitoring program will be summarised and presented in the AEMR/Annual Review together with reference to prevailing meteorological data and site activities during the measurement period(s), where relevant. Reporting will also include an analysis of the monitoring results against the exceedance criteria, previous monitoring results and predictions made in the EA.

The extent of notification and reporting requirements depends on the severity of the issue but generally includes notification to DoPI and EPA and/or the affected landholder as soon as practicable after obtaining monitoring results with regular monitoring results to be provided to each of these parties until compliance with the criteria can be demonstrated. Discussion of all results will also be included in CCC Environment Monitoring Reports and the AEMR/Annual Review.

In addition to the reporting requirements listed above, noise quality monitoring data will be made available to the public upon request.

8 <u>DOCUMENT REVIEW AND CONTINUOUS IMPROVEMENT</u>

This document will be reviewed at least every two years and following any significant changes (ie. changes to approval/licence requirements or monitoring protocol). Each review will be undertaken in consultation with relevant stakeholders and will be submitted to the Director-General for approval.

RCM will investigate and implement ways to improve the environmental performance of the project over time. This will be achieved by keeping abreast of best practice in the industry for noise monitoring and controls and reporting on outcomes of road noise monitoring annually in the AEMR/Annual Review.