# NOISE MANAGEMENT PLAN

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<th>Edition</th>
<th>Rev.</th>
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<th>Author</th>
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<td>T Thompson</td>
<td>Chris Burgess</td>
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<td>2011 Rocglen Extension Project Review</td>
<td>Chris Thomas</td>
<td>Danny Young</td>
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<td>Duncan McGregor</td>
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<td>November 2015</td>
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ACRONYMS USED THROUGHOUT THIS DOCUMENT

AR - Annual Review (incorporates former Annual Environmental Management Report)
AS - Australian Standard
CCC - Community Consultative Committee
OEH - Office of Environment and Heritage
DP&E - Department of Planning and Environment
EA - Environmental Assessment
EPA - Environment Protection Authority
EPL - Environment Protection Licence
GSC - Gunnedah Shire Council
DRE - NSW Department of Industry, Skills and Regional Development- Division of Resources and Energy
ML - Mining Lease
NMP - Noise Management Plan
RCM - Rocglen Coal Mine
1 INTRODUCTION

The Rocglen Coal Mine (RCM) is located approximately 28km north of Gunnedah, and 10km west of the former Canyon Coal Mine (formerly Whitehaven) (Figure 1). The mine site covers an area of approximately 460 hectares within Mining Lease (ML 1620) and Mining Lease (ML 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 2011. 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).

A minor modification (PA 10_0015 MOD 1) was approved on the 10th November 2014 relating to coal transport, and a further modification (PA 10_0015 MOD 2) was approved on the 24th August 2015 allowing changes to coal reject haulage to the site.

It is recognised that the operation of the mine has 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 of PA 10_0015 MOD 2, this Noise Management Plan (NMP) has been developed, and revised as required.

The NMP 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 MOD 2, 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 NMP presents the relevant conditions of PA 10_0015 MOD 2 (see Section 2), and includes noise controls and management procedures (Section 4) to assist with compliance with noise criteria identified in Section 2. Section 3 presents the specific features of the noise monitoring program, including monitoring locations, parameters measured, and frequency of monitoring whilst Section 4.2 includes procedures for addressing complaints, exceedances, and non-compliances.

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

It should be noted that road noise monitoring and management measures associated with coal haulage are addressed in the Road Noise Management Plan required under Schedule 3 Condition 4 (c) of PA 10_0015 MOD 2, and are therefore not discussed in this Plan.

Table 1 presents the typical mining fleet in operation at the Rocglen site.
Table 1 - Typical Mining Fleet

<table>
<thead>
<tr>
<th>Item</th>
<th>Number in operation</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavator (Hitachi EX1900)</td>
<td>1</td>
<td>Overburden and Coal Loading</td>
</tr>
<tr>
<td>Excavator (Hitachi EX3600-6)</td>
<td>1</td>
<td>Overburden Loading</td>
</tr>
<tr>
<td>Excavator (Hitachi EX2500)</td>
<td>1</td>
<td>Overburden Loading</td>
</tr>
<tr>
<td>Excavator (CAT 330B)</td>
<td>1 (p/t)</td>
<td>Drainage, windrows</td>
</tr>
<tr>
<td>Rear Dump Truck (CAT 785)</td>
<td>9</td>
<td>Overburden, Coal Haulage</td>
</tr>
<tr>
<td>Rear Dump Truck (CAT 777)</td>
<td>3</td>
<td>Overburden, Coal Haulage</td>
</tr>
<tr>
<td>Bulldozer (CAT D10)</td>
<td>2</td>
<td>Overburden rip/push, clearing, emplacement</td>
</tr>
<tr>
<td>Bulldozer (CAT D9N)</td>
<td>1</td>
<td>Overburden ripping/push for scrapers</td>
</tr>
<tr>
<td>Bulldozer (CAT D11R)</td>
<td>2</td>
<td>Overburden ripping/pushing</td>
</tr>
<tr>
<td>Grader (CAT 14H)</td>
<td>1 (p/t)</td>
<td>Road maintenance</td>
</tr>
<tr>
<td>Grader (CAT 16M)</td>
<td>1</td>
<td>Road maintenance</td>
</tr>
<tr>
<td>Scraper (CAT 657E)</td>
<td>2</td>
<td>Campaign topsoil/subsoil removal and replacement</td>
</tr>
<tr>
<td>Scraper (CAT 637D)</td>
<td>3</td>
<td>Campaign topsoil/subsoil removal and replacement</td>
</tr>
<tr>
<td>Scraper (CAT 631)</td>
<td>2</td>
<td>Campaign topsoil/subsoil removal and replacement</td>
</tr>
<tr>
<td>Drill Rig (Terex SKF50)</td>
<td>1</td>
<td>Blast hole drilling</td>
</tr>
<tr>
<td>Water Truck (30,000L)</td>
<td>1</td>
<td>Dust suppression</td>
</tr>
<tr>
<td>Water Truck (15,000L)</td>
<td>2</td>
<td>Dust suppression</td>
</tr>
<tr>
<td>Crushing Plant</td>
<td>1</td>
<td>Coal size reduction</td>
</tr>
<tr>
<td>Wheel Loader (CAT 988H)</td>
<td>1</td>
<td>Feeding/Processing plant, product truck loading</td>
</tr>
<tr>
<td>Wheel Loader (CAT IT38G)</td>
<td>1</td>
<td>Equipment handling, blast hole stemming</td>
</tr>
<tr>
<td>Diesel Powered Lighting Tower</td>
<td>8</td>
<td>Light for evening, night operations</td>
</tr>
<tr>
<td>Fuel/Service Truck</td>
<td>1</td>
<td>Equipment refuelling/servicing</td>
</tr>
<tr>
<td>Forklift/Tyre handler</td>
<td>1</td>
<td>Equipment handling</td>
</tr>
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</table>

The above fleet items represent items that will contribute to the overall noise generation from the Rocglen project. Whilst specific noise control will ultimately seek to achieve the 35dB(A) \( L_{eq} \) compliance criteria, regardless of the equipment in operation, use of the real time noise monitor will provide an opportunity to identify specific noise sources, which may assist in terms of the management measures taken (ie. stand down of specific plant items) during the noise assessment process.
Figure 1  Rocglen Coal Mine Location
2 NOISE IMPACT ASSESSMENT CRITERIA

2.1 Noise Criteria

In order to manage the potential noise impacts, and in compliance with Schedule 3, Condition 4 of PA 10_0015 MOD 2, this NMP 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 MOD 2 Schedule 3, Condition 1 which states:

The Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 1 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

<table>
<thead>
<tr>
<th>Location</th>
<th>Day</th>
<th>Evening</th>
<th>Night</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LA_{eq} (15 min)</td>
<td>LA_{eq} (15 min)</td>
<td>LA_{eq} (15 min)</td>
</tr>
<tr>
<td>All privately-owned land</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
</tbody>
</table>

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

However, these criteria do not apply if the proponent has a written agreement with the relevant landholder to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.

These noise criteria should be considered in conjunction with Conditions L4.2 to L4 of EPL 12870 which discuss definitions, prevailing meteorological conditions, and legally binding agreements. The monitoring locations where the impact assessment criteria are assessed are specified in EPL 12870, as outlined in Section 4.2.

In addition to the above requirements, Condition 3 of Schedule 3 states:

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;

(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 Secretary.

Condition 18 of Schedule 3, also relevantly states:

During the life of the project, the proponent shall ensure that there is a meteorological station operating in the vicinity of the site that:
(a) complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and

(b) is capable of continuous real time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy, or as otherwise agreed by EPA.

Prevailing weather conditions for the site are an important feature in considering applicable mitigation measures for noise propagation. Following from the investigations conducted for the Rocglen Extension Project, it was identified that the average wind speed was 2.3m/s and was predominantly from the north-west and south-east quadrants. Temperature inversions are also a feature of the area, especially during the winter months, with a 6°/100m inversion strength adopted for the purposes of the noise model for the Rocglen extension.

2.2 General and Specific Noise Mitigation Measures

Whilst modelling from the Rocglen Extension EA predicts acceptable noise impacts at all privately owned residents throughout the life of mine, a number of general noise management measures will continue to be undertaken, including:

- Contractors, including all personnel and sub-contractors, will be advised of noise compliance limits prior to their work commencing. Contactors will be expected to take practical measures to limit noise generation during their activities where possible.

- Prior to being brought on-site, all earthmoving equipment will be tested to ensure sound power levels are consistent with the previous assessments undertaken by Spectrum Acoustics. The sound power levels adopted are those identified in the Rocglen Extension EA Volume 3 Appendix Q (Table 2, Page 10).

- Site personnel will be required to pay due attention to site weather conditions and modify or stand down from operational activities if required by mine management.

- Where possible, equipment with lower sound power levels will be used in preference to more noisy equipment.

- All equipment used on-site will be regularly serviced to ensure the sound power levels remain at or below the levels used in the modelling undertaken by Spectrum Acoustics, listed in Table 2, Appendix Q of the RCM Extension EA.

- Mid-high frequency broadband beepers are fitted to on-site mobile mining equipment.

- The on-site road network will be maintained to limit vehicle body noise.

The project has been designed so that the expanded Northern Emplacement Area will be re-shaped and revegetated early in the Project life to, amongst other things, minimise the projection of noise from overburden transportation and emplacement activities towards privately owned residences located in the north and north-east later in the mine life.
Whitehaven will undertake routine consultation with residents surrounding Rocglen, as well as with the Community Consultative Committee (CCC), to ensure that any concerns relating to operational or traffic noise are addressed. 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 Annual Review.

Figure 2 identifies the locations of nearby privately owned residents that may be impacted by operational noise. It should be noted that the nearest non-project related residence is the “Surrey” property. “Roseberry” is subject to a private agreement that enables noise levels up to 40 dB(A). “Surrey” to the south-east and “Retreat” to the north are the two nominated attended noise monitoring locations.

As part of the ongoing noise management of the site, operations will be undertaken giving due consideration to actual noise levels recorded by the real time noise monitor, which can be stationed at different locations around the site depending upon operations and prevailing wind conditions at the time.

On triggering of a noise alert, operations will be tasked with determining if the noise is mine related, and if confirmed, actions to modify operations to reduce noise levels will be undertaken. This may include:

- relocation of dump position to reduce noise impacts;
- stand down items of equipment to achieve noise compliance;
- changes in operator behaviour (speed of trucks, haul road used, speed of dozers);
- use of predictive forecasts to determine suitable dumping locations (ie. upper dumps during the day, and in-pit dumping at night where possible).

Relevant personnel comprising the Environmental Officer, OCE or Site Supervisor and Operations Manager are trained in operation of the real time system, including alarms, live streaming of audio and reactive management to noise impacts.

3 MONITORING PROGRAM

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

3.1 Monitoring Activities

Attended noise monitoring will be undertaken on a quarterly basis by an independent acoustic consultant. All attended noise monitoring will be conducted in accordance with the NSW Industrial Noise Policy, AS 1055.1-1997 ‘Acoustics – Description and Measurement of environmental noise – General Procedures’, and will expressly monitor the modification
factors referred to in the NSW Industrial Noise Policy. Attended noise monitoring will be undertaken during day, evening and night time periods.

In order to actively manage noise emissions onsite, and to adequately comply with the requirement for reactive noise control measures, Rocglen has a real time noise monitor: a Sentinex Continuous Noise Management System. The key features of the system are as follows:

- Real time access to monitoring information;
- Universal user interface platform (web browser);
- Customised alarm settings;
- Automatic daily reporting;
- Access to meteorological station information from the noise unit, as well as the stand alone Rocglen Meteorological Station;
- Streaming audio to PC; and
- Continuous audio recording (.mp3).

This system provides real time access to noise data, and provides the capacity to set the unit to a target noise goal. Upon noise emissions reaching the identified target level, an automated SMS message is delivered to operational personnel on site which triggers an investigation into the noise source, both through review of audio files, and on site knowledge of surface operations. Upon determination that the noise source is mine site related, active measures can be put in place to modify operations, or stand down the noise source to ensure compliance with noise criteria is maintained.

The real time continuous noise management unit has been set to trigger an SMS alert to site personnel upon recording of a continuous noise source at 33dBA for a period of 15 minutes (which is 2dB below the noise limit). Upon the issue of the alert, site personnel access the web interface of the real time noise management unit to identify the noise source and determine if it is project related. In the event that the noise source is identified as a low frequency, mine related noise, site personnel will closely monitor noise levels to verify if noise levels remain below threshold. In the event that a second SMS alert triggers within a 2 hour timeframe, and is confirmed as mine related, the Operations Manager will investigate and implement operational measures to bring noise levels back to compliance limits. These operational measures may include, but will not be limited to, standing down of specific items of equipment, and or relocating equipment to alternate areas of the site, eg. discontinuing operations on the southern dump. This process has been regularly reviewed to ensure that the reactive processes are undertaken in a timely manner and resolve any noise issues prior to the development of noise related complaints. The review of noise levels will also give due consideration to the prevailing weather conditions at the time. Wind speeds >3m/s as measured on the 10m mast from the weather station and temperature inversion conditions as specified within the Rocglen EPL will be considered outside normal conditions and noise limits under these conditions will not apply.

Attended monitoring will also be used to ensure calibration of the monitor and to provide specialist advice on monitoring outcomes on a quarterly basis.
3.2 Monitoring Locations

Figure 2 presents the attended noise monitoring locations with monitor locations and land ownership details as follows:

- “Surrey”; and
- “Retreat”.

“Retreat” provides a monitoring point that is directly north of operations and thereby within the prevailing wind directions characteristic of the area. Similarly, the “Surrey” monitoring point is located south east of operations and thereby also within wind directions characteristic of the area. The landholders of both properties have provided consent to the undertaking of noise monitoring at their properties.

The location of the real time monitor has been established in consultation with EPA, on the basis that it can be relocated on an as needs basis based on prevailing weather conditions, community complaints/concerns and operations at site so as RCM has capacity to effectively measure noise levels at the most likely affected receiver.

3.3 Monitoring Frequency

Noise monitoring frequencies are nominated in Table 2. If conditions on the day of monitoring are not suitable (ie. high winds, rain etc) then the monitoring event must be rescheduled within the following 3 weeks (weather permitting) to ensure ongoing compliance with monitoring frequency. Monitoring will only be undertaken during periods representative of mining operations.

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Responsibility</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Attended noise monitoring</td>
<td>Quarterly</td>
<td>Suitably qualified acoustical consultant, in conjunction with Environmental Officer</td>
<td>Noise monitoring methodology provided in Section 3.4</td>
</tr>
<tr>
<td>Real time noise monitoring</td>
<td>Continuous</td>
<td>Environmental Officer, OCE and Operations Manager</td>
<td>Monitored in accordance with methodology provided in Section 3.4</td>
</tr>
<tr>
<td>Real time noise monitoring requiring operational changes</td>
<td>Continuous</td>
<td>Operations Manager/OCE, Environmental Officer</td>
<td>Reactive management to achieve noise compliance</td>
</tr>
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</table>
Figure 2 Noise Monitoring Locations
3.4 Monitoring Procedures

Attended noise surveys will be conducted as follows:

- All noise investigations will be carried out in accordance with NSW EPA Industrial Noise Policy, 2000 (INP), Environmental Noise Control Manual (ENCM) and applicable Australian Standards;

- Noise levels will be measured in one-third octave bands using an instrument with IEC Type 1 characteristics as defined in Australian Standard AS IEC 61672.1 – 2004 “Electroacoustics – Sound Level Meters – Specifications”. 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;

- The instrument will be set to A-weighting, “fast” response and measurements of $L_{Aeq}(15\text{ minute})$, $L_{Amax}$, $L_A(1\text{ minute})$, $L_{A10}$, $L_{A90}$, $L_{Amin}$ will be taken at each location in Figure 2. Each measurement will be stored at a sampling rate of no greater than 5 seconds for further analysis;

- Attended surveys will be conducted during the approved hours of operation with measurements taken at each noise monitoring location in Figure 2, so that noise levels during the full range of operating times (day, evening and night) are monitored. In accordance with EPL requirements, this will comprise:
  - quarterly within a reporting period;
  - occur during each day, evening and night period as defined in the NSW INP for a minimum of;
    - 1.5 hours during the day;
    - 30 minutes during the evening; and
    - 1 hour during the night.
  - occur for 3 consecutive operating days.

- Field notes will be taken during each measurement recording the time and duration of noise events, noise sources, instantaneous noise levels and the frequency range of identified site noise sources. Where a noise exceedance is detected, the noise monitor must notify the Environmental Officer of the exceedance and obtain relevant information as to the possible source of the exceedance, ie. malfunctioning equipment, additional activity contributing to noise levels etc to ensure appropriate reporting and action on the exceedance;

- Extraneous noise sources will be filtered from the measured signal using robust methods approved by EPA and DP&E and the $L_{Aeq}(15\text{ minute})$ level attributable to RCM activities will be identified and compared with the relevant criteria. The methods used to filter extraneous noise sources will be on the basis of expert advice from the recognised noise consultant; and
Details regarding plant configuration, survey interval, weather conditions, extraneous noise sources, monitoring locations and times of measurement will be recorded for inclusion in the noise monitoring report.

Real-time noise monitoring will be conducted as follows:

- A mobile real-time noise monitoring system utilising IEC Type 1 sound level meter with statistical and third-octave band capabilities will be utilised. Site selection will be based on location of operational activity most likely to impact on that receiver;
- The unit will calculate, as a minimum, 15-minute statistics comprising LA90, LAeq and LA10 and low-frequency filtered LAeq (12.5 to 630Hz range) but able to be changed);
- Each 15-minute statistic will have an accompanying third-octave band spectrum;
- Statistical data and digital audio files (minimum duration one minute per 15 minute interval) will be continuously uploaded to the internet using an appropriate communications format;
- A computer accessible to site personnel will display statistical results in real time via an internet browser and daily charts will be stored for later reference or printing;
- Noise levels nominally at 2dB below site noise criteria will be set as trigger points in the real-time system to send pre-programmed SMS messages to relevant personnel;
- On receipt of an SMS alert, audio files will be reviewed to determine the cause of the noise and, if necessary, the management safeguards and ameliorative actions in Section 4 will be initiated; and
- If the real-time noise monitor is situated at an attended monitoring location, both the attended and real-time results will be included in the attended monitoring report.

The site meteorological station is capable of continuous real-time measurement of sigma theta and identify the stability class prevalent in real time. This will allow Whitehaven to identify temperature inversions and minimise noise impacts of the project accordingly.

Predictive weather forecasting is currently undertaken through reference to weekly Bureau of Meteorology (BOM) forecasts. This approach to weather forecasting to inform operations has shown to be effective to date with the operations remaining compliant with received noise criteria.
4 MANAGEMENT OF EXCEEDANCES, COMPLAINTS AND NON-COMPLIANCE

4.1 Noise Compliance Criteria Exceedance

If noise levels from the mine exceed the levels outlined in Section 2, as measured from attended noise monitoring events, advice will be sought from the 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;
- 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.

It should be noted that the real time noise management system cannot be used to assess compliance, with its primary function being to provide capacity for reactive management of noise levels at site.

It should also be noted that under the following meteorological conditions, as specified under the Rocglen EPL 12870, noise compliance criteria do not apply:

(a) wind speeds >3m/s at 10m above the ground; or
(b) Stability category F temperature inversion conditions and wind speeds >2m/s at 10m above ground level; or
(c) Stability category G temperature inversion conditions.

These weather conditions will be identified based on the observations from the weather station at site.

4.1.1 Notification Requirements

Notification requirements are outlined in Section 5.2.

4.2 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.
- If no action was taken by RCM, the reason why no action was taken.

The Environmental Officer 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).

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 Officer 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 in the Annual Review.

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

4.3 Non-Compliance

With the exception of noise compliance criteria exceedances (as discussed in Section 4.1), non-compliances relating to noise would most likely relate to not achieving the required quarterly attended monitoring events. Any non-compliances of this nature will be detailed in the EPL Annual Return and/or Annual Review, and include details as to why the non-compliance occurred.
4.4 Unpredicted Impact Protocol

In the event that unpredicted or unforeseen noise impacts are identified, the following protocol (Table 3) will be adopted.

Table 3 - Unpredicted Impact Protocol

<table>
<thead>
<tr>
<th>Step</th>
<th>Procedure</th>
</tr>
</thead>
</table>
| 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. |
5 RECORD KEEPING AND REPORTING REQUIREMENTS

5.1 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 (as required by Condition M1.3 of the EPL).

Data obtained from the real-time noise monitor will be available in real time, as well as through daily reporting from the monitoring unit to selected personnel. Key personnel for the provision of daily reports will be the Operations Manager for the Rocglen site and the Environmental Officer. In addition to daily reports, the monitor will be downloaded at regular intervals with data available on an archival basis. A record will be maintained of daily actions taken in response to noise alarms from the real time noise unit to demonstrate ongoing proactive management of noise from the site.

Noise monitoring results, both from attended and real time 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.

5.2 Reporting Requirements

A summary of noise monitoring results, including real time monitoring, will be reported internally on a monthly basis as well as to the 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, including real time monitoring, will be summarised and presented in the 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 will include notification to DP&E and EPA and/or the affected landholder as soon as practicable after the exceedance is known, as well as discussion in CCC Environment Monitoring Reports and the Annual Review. Regular monitoring results will continue to be supplied to the affected landholder and/or tenants until the project is complying with the relevant criteria.
6 DOCUMENT REVIEW AND CONTINUOUS IMPROVEMENT

This document will be reviewed in accordance with the requirements of Condition 4 Schedule 5 of PA 10_0015 MOD 2.

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 noise monitoring annually in the Annual Review.