

# **WILPINJONG COAL NOISE MANAGEMENT PLAN**

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June 2017

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Document No.	Version	Date	Prepared/Reviewed By	Distribution	Description of Change
NMP-R01	B	6 February 2006	WCPL, Heggies Pty Ltd	DECC, DP&E	Original plan - developed for initial development phase of the project This version was approved by DP&E.
NMP-R02	C	6 February 2008	WCPL, Advitech/Heggies Pty Ltd	DP&E	-
NMP-R03	C	3 July 2009	-	DP&E	This version was approved by DP&E on 22 Oct 2009.
NMP-R03	D	July 2011	-	DP&E and OEH	-
NMP-R03	E	7 September 2011	-	DP&E and OEH	-
NMP-R03	F	15 September 2011	-	DP&E and OEH	This version was approved by DP&E.
WI-ENV-MNP-0011	1	16 May 2014	WCPL, Palaris, Resource Strategies	DP&E and OEH	New document number. Revised following approval of Mod 5 (PA 05-0021)
WI-ENV-MNP-0011	2	October 2016	WCPL	DP&E	MOD 7
WI-ENV-MNP-0011	3	June 2017	WCPL & SLR	DP&E & EPA	Revision of AQMP to align with SSD-6764 as a result of the WEP.

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## 1 Introduction

The Wilpinjong Coal Mine (“the Mine”) is owned and operated by Wilpinjong Coal Pty Limited (WCPL), a wholly owned subsidiary of Peabody Energy Australia Pty Ltd (PEA).

The Mine is an existing open cut coal mining operation situated approximately 40 kilometres (km) north-east of Mudgee, near the Village of Wollar, within the Mid-Western Regional Local Government Area, in central New South Wales (NSW) (**Figure 1**). The mine produces thermal coal products which are transported by rail to domestic customers for use in electricity generation and to port for export. Open cut mining operations are undertaken 24 hours per day, seven days per week.

PEA and its subsidiaries, WCPL and Peabody Pastoral Holdings Pty Ltd, is a major landholder owning adjacent rural properties and land to the east and south-east of the Mine. Land to the west of the Mine is owned by adjacent mining companies, whilst the National Parks and Wildlife Service estate own significant land to the north and south-west of the Mine.

Private properties are located predominantly in and around the Wollar Village approximately 1.5 km to the east of the Mine and along Mogo Road to the north of the Mine.

The Mine originally operated under Project Approval (PA 05-0021) that was granted by the Minister for Planning under Part 3A of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) on 1 February 2006. Modification of the Project Approval subsequently occurred six times<sup>1</sup> with the most recent modification (Modification 7) approved in August 2016. The existing Noise Management Plan (NMP) was developed in accordance with NSW Project Approval 05-0021 and the last revision was approved by the Department of Planning and Environment (DP&E) in March 2017.

On 24 April 2017, WCPL was granted Development Consent (SSD-6764) for the Wilpinjong Extension Project (WEP) that provides for the continued operation of the Mine at rates of up to 16 million tonnes per annum (Mtpa) of run-of-mine (ROM) out to 2033, and access to approximately 800 hectares (ha) of open cut extensions. Development Consent (SSD-6764) has superseded the Project Approval (Project Approval 05-0021)<sup>2</sup>.

This NMP has been prepared to satisfy the relevant conditions in Development Consent (SSD-6764). Where relevant, this NMP builds on the relevant components of the existing/approved NMP, including previous feedback from relevant government stakeholders and recommendations from the Noise and Blasting Assessment (SLR, 2015) prepared for the WEP. This NMP was also reviewed by SLR Consulting Australia Pty Ltd (SLR).

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<sup>1</sup> Mod 2 was withdrawn.

<sup>2</sup> Condition 9, Schedule 2 of SSD-6764 (Surrender of Existing Project Approval). Refer to **Section 2.1**.





- LEGEND**
- Mining Lease Boundary
  - Exploration Licence Boundary
  - Authorisation Boundary
  - Local Government Boundary
  - NSW State Forest
  - National Park, Nature Reserve or State Conservation Area
  - ✂ Mining Operation

Source: NSW Land & Property Information (2015);  
NSW Dept of Industry (2015); Geoscience Australia (2011)

**Peabody**  
ENERGY  
**WILPINJONG COAL MINE**  
Regional Location

**Figure 1: Locality Plan**

## 1.1 Definitions

**Table 1** lists the definitions for particular terms used throughout this NMP.

**Table 1: Definition of Acronyms and Particular Terms**

Acronym / Terms	Definition
<b>Operator-attended Noise Monitoring</b>	Operator-attended noise monitoring involves a suitably qualified and experienced acoustical consultant operating a sound level meter for 15 minutes at each monitoring location in order to quantify noise emissions from the Project.
<b>CRO</b>	Control Room Operator
<b>Development Consent (SSD-6764)</b>	Number SSD-6764 granted by the Minister for Planning under Part 4 of the EP&A Act on 24 April 2017
<b>Director-General</b>	The Director-General of the Department of Planning and Environment
<b>DP&amp;E</b>	Department of Planning and Environment
<b>DRE</b>	Department of Resources & Energy
<b>EA</b>	Environmental assessment
<b>ECM</b>	Environment and Community Manager
<b>EMS</b>	Environmental Management System
<b>EL</b>	Exploration Licenses 6169 and 7091 granted by the Minister for Resources and Energy under the Mining Act 1992 on 3 March 2008 respectively. EL 6169 was renewed on 14 October 2013 and EL 7091 was renewed on 12 March 2013.
<b>EPA</b>	NSW Environment Protection Authority
<b>EP&amp;A Act</b>	<i>Environmental Planning and Assessment Act 1979</i> . The primary piece of legislation for the regulation of land use, planning and development within NSW.
<b>EPL</b>	Environment Protection License 12425. Granted by the EPA under the POEO Act.
<b>Exceedance</b>	An exceedance is deemed to have occurred when an operator-attended noise monitoring result, measured in accordance with the INP and Development Consent (SSD-6764) exceeds the Noise Criteria in <b>Table 6</b> . The noise must be solely attributable to the Mine and under the applicable meteorological conditions ( <b>Section 6.3.6</b> ).
<b>INP</b>	NSW Industrial Noise Policy (EPA, 2000)
<b>MCO</b>	Moolarben Coal Operations
<b>ML</b>	Mining Lease
<b>MWRC</b>	Mid-Western Regional Council
<b>Minimise</b>	To minimise noise from the Project to the extent required by Development Consent (SSD-6764) and EPL.
<b>Mine</b>	Wilpinjong Coal Mine
<b>NMP</b>	Noise Management Plan
<b>NMS</b>	Noise Management System as shown in <b>Figure 6</b>
<b>Noise Alarm</b>	An alarm created by a real-time noise monitor and is nominally 2 dBA below the relevant Noise Criteria.
<b>Noise Criteria</b>	Noise Criteria nominated in Development Consent (SSD-6764) and summarised in <b>Table 6</b> .
<b>Noise Conditions</b>	Noise Conditions nominated in the Development Consent (SSD-6764) and EPL.
<b>Non-compliance</b>	A non-compliance is deemed to have occurred when a second operator-attended noise monitoring result [measured in accordance with the INP and Development Consent (SSD-6764)], taken within 75 minutes of an exceedance, also exceeds the Noise Criteria in <b>Table 6</b> and either the first and or the second measured noise result is more than 2dBA above the Noise Criteria. Reporting requirements for a non-compliance are detailed in <b>Section 6.3.7</b> .
<b>Project</b>	The development as described in the WEP EIS (WCPL, 2016)
<b>Project Approval</b>	Number 05-0021 granted by the Minister for Planning under Part 3A of the EP&A Act on 1 February 2006 (as amended from time to time).

Acronym / Terms	Definition
<b>Private Receiver</b>	Private receivers at the locations identified in <b>Table 6</b> and <b>Section 4.3</b> .
<b>PEA</b>	Peabody Energy Australia Pty Ltd
<b>POEO Act</b>	<i>Protection of the Environment Operations Act 1997</i>
<b>OCE</b>	Open Cut Examiner
<b>Real-Time Noise Monitoring</b>	Real-time noise monitoring is undertaken using unattended noise loggers that continuously statistical record noise levels as well as the audible noise signal. Real-time noise monitoring is used as an internal WCPL noise management tool and not for compliance purposes.
<b>Secretary</b>	The Secretary of Department of Planning and Environment
<b>WCPL</b>	Wilpinjong Coal Pty Limited
<b>WCP</b>	The Wilpinjong Coal Project as described in the WCP EIS (WCPL, 2006)
<b>WEP</b>	The Wilpinjong Extension Project as described in the WEP EIS (WCPL, 2016)
<b>WCP EIS</b>	The Wilpinjong Coal Project Environmental Impact Statement (WCPL, 2006)
<b>WEP EIS</b>	The Wilpinjong Extension Project Environmental Impact Statement (WCPL, 2016)
<b>WEP NIA</b>	The Wilpinjong Extension Project Noise and Blasting Assessment (SLR, 2015)
<b>UCML</b>	Ulan Coal Mines Limited (UCML)
<b>VLAMP</b>	Voluntary Land Acquisition and Mitigation Policy: For State Significant Mining, Petroleum and Extractive Industry Developments (NSW Government, 2014)

## 1.2 Purpose

The purpose of this NMP is to minimise the Mine's operational, road, and rail noise levels and minimise noise impacts on the local community to the extent required by the Noise Conditions in Development Consent (SSD-6764) and Environmental Protection Licence 12425 (EPL 12425). This NMP has been developed to:

- Describe the measures to be implemented to comply with the Noise Conditions;
- Describe the noise management and mitigation strategies used to minimise Mine noise;
- Provide a noise monitoring protocol for evaluating compliance with the Noise Conditions;
- Provide a protocol for managing and reporting any noise exceedances or non-compliances;
- Describe and assign responsibilities relating to noise management at the Mine;
- Describe how this NMP will be reviewed and updated; and
- Form part of the WCPL EMS and associated aspects and impacts register.

## 1.3 Scope

This NMP has been prepared in accordance with the relevant Noise Conditions of Development Consent (SSD-6764) to manage noise levels and minimise noise impacts to Private Receivers from open cut mining operations, coal processing and ancillary activities associated with operation of the Mine (**Appendix 1**).

## 1.4 Consultation

This NMP has been prepared in accordance with the relevant Noise Conditions of Development Consent (SSD-6764). Initial consultation with the DP&E and NSW Environmental Protection Agency (EPA) commenced on 23 May 2017. Copies of correspondence during the development of this NMP are included in **Appendix 2**.



## 2 Statutory Requirements

This NMP has been prepared in accordance with the requirements of Development Consent (SSD-6764) as shown in **Section 2.2** and Environmental Protection Licence No.12425 (EPL 12425) as shown in **Appendix 1**.

### 2.1 Project Approval and Licence Requirements

**Table 2** summarises WCPL’s current and historical statutory approvals, and those subject to surrender.

**Table 2: WCPL’s Current and Historical Statutory Approvals**

Approval/Licence No.	Description	Date of Approval	Agency
<b>SSD-6764</b>	Development Consent	24 April 2017	DP&E
<b>EPL 12425</b>	EPL	16 January 2017 <sup>2</sup>	EPA
<b>PA05-0021<sup>1</sup></b>	Project Approval	1 February 2006	DP&E
	Mod 1	30 November 2007	DP&E
	Mod 3	8 September 2010	DP&E
	Mod 4	24 August 2012	DP&E
	Mod 5	7 February 2014	DP&E
	Mod 6	21 November 2014	DP&E
	Mod 7	11 August 2016	DP&E

**Notes:**<sup>1</sup> In accordance with Condition 9, Schedule 2 of Development Consent SSD-6764, *within 6 months of the commencement of development under this consent, or as otherwise agreed by the Secretary, WCPL must surrender the existing project approval (PA05-0021) for the Wilpinjong Coal Project in accordance with Section 8P of the EP&A Regulation. Following the commencement of development under this consent, and prior to the surrender of PA05-0021, the conditions of SSD-6764 shall prevail to the extent of any inconsistency with conditions of PA05-0021.* <sup>2</sup> Date of most recent EPL Variation.

### 2.2 Specific Development Consent Requirements

This NMP has been prepared in accordance with Conditions 2, 3 (including Appendix 6), 4 5 and 6, Schedule 3 of Development Consent (SSD-6764). **Table 3** presents the noise specific requirements and indicates where they are addressed within this NMP. Other statutory and Development Consent (SSD-6764) requirements are shown in **Appendix 1**.

**Table 3 Development Consent Noise Requirements**

Development Consent (SSD-6764) Condition	NMP Section																																		
<p><b>ACQUISITION UPON REQUEST</b></p> <p>1. Upon receiving a written request for acquisition from the owner of land listed in Table 1, the Applicant must acquire the land in accordance with the procedures in conditions 5 and 6 of schedule 4.</p> <p><i>Table 1: Land subject to acquisition upon request</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="background-color: #cccccc;">Residence</th> </tr> <tr> <th style="background-color: #cccccc;">Residence</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">102, 903, 908, 933 and 959</td> </tr> </tbody> </table> <p><i>Note: To interpret the land referred to in Table 1, see the applicable figures in Appendix 5.</i></p>	Residence	Residence	102, 903, 908, 933 and 959	Section 4.5																															
Residence																																			
Residence																																			
102, 903, 908, 933 and 959																																			
<p><b>MITIGATION UPON REQUEST</b></p> <p>2. Upon receiving a written request from the owner of any residence on the land listed in Table 2, the Applicant must implement additional noise mitigation measures at or in the immediate vicinity of the residence in consultation with the landowner. These measures must be consistent with the measures outlined in the Voluntary Land Acquisition and Mitigation Policy. They must also be reasonable and feasible and proportionate with the level of predicted impact.</p> <p>If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.</p> <p><i>Table 2: Land subject to additional mitigation upon request</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="background-color: #cccccc;">Mitigation Basis</th> <th style="background-color: #cccccc;">Residence</th> </tr> <tr> <th style="background-color: #cccccc;">Mitigation Basis</th> <th style="background-color: #cccccc;">Residence</th> </tr> </thead> <tbody> <tr> <td>Noise</td> <td style="text-align: center;">102, 903, 908 and 933</td> </tr> </tbody> </table> <p><i>Note: To interpret the land referred to in Table 2, see the applicable figures in Appendix 5.</i></p>	Mitigation Basis	Residence	Mitigation Basis	Residence	Noise	102, 903, 908 and 933	Section 4.3																												
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Noise	102, 903, 908 and 933																																		
<p><b>NOISE</b></p> <p><b>Noise Criteria</b></p> <p>3. The Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 3 at any residence on privately-owned land or at the other specified locations.</p> <p><i>Table 3: Noise criteria dB(A)</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2" style="background-color: #cccccc;">Location</th> <th style="background-color: #cccccc;">Day</th> <th style="background-color: #cccccc;">Evening</th> <th colspan="2" style="background-color: #cccccc;">Night</th> </tr> <tr> <th style="background-color: #cccccc;">LAeq(15 minute)</th> <th style="background-color: #cccccc;">LAeq(15 minute)</th> <th style="background-color: #cccccc;">LAeq(15 minute)</th> <th style="background-color: #cccccc;">LA1(1 minute)</th> </tr> </thead> <tbody> <tr> <td>102</td> <td style="text-align: center;">36</td> <td style="text-align: center;">36</td> <td style="text-align: center;">38</td> <td style="text-align: center;">45</td> </tr> <tr> <td>Wollar Village – Residential</td> <td style="text-align: center;">36</td> <td style="text-align: center;">37</td> <td style="text-align: center;">37</td> <td style="text-align: center;">45</td> </tr> <tr> <td>All other privately owned land</td> <td style="text-align: center;">35</td> <td style="text-align: center;">35</td> <td style="text-align: center;">35</td> <td style="text-align: center;">45</td> </tr> <tr> <td>901 – Wollar School</td> <td></td> <td style="text-align: center;">35 (internal) 45 (external) When in use</td> <td></td> <td style="text-align: center;">-</td> </tr> <tr> <td>150A – St Luke’s Anglican Church 900 – St Laurence O’Toole Catholic Church</td> <td></td> <td style="text-align: center;">40 (internal) When in use</td> <td></td> <td style="text-align: center;">-</td> </tr> </tbody> </table> <p><i>Note: To interpret the locations referred to in Table 3, see the applicable figures in Appendix 5.</i></p> <p>Noise generated by the development is to be measured in accordance with the relevant requirements of the <i>NSW Industrial Noise Policy</i> (as may be updated from time to time). Appendix 6 sets out the meteorological conditions under which these criteria apply along with any modifications to the <i>NSW Industrial Noise Policy</i> and the requirements for evaluating compliance with these criteria.</p> <p>However, these criteria do not apply if the Applicant has an agreement with the owner/s of the relevant residence of land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.</p>	Location	Day	Evening	Night		LAeq(15 minute)	LAeq(15 minute)	LAeq(15 minute)	LA1(1 minute)	102	36	36	38	45	Wollar Village – Residential	36	37	37	45	All other privately owned land	35	35	35	45	901 – Wollar School		35 (internal) 45 (external) When in use		-	150A – St Luke’s Anglican Church 900 – St Laurence O’Toole Catholic Church		40 (internal) When in use		-	Section 4.1 & Table 6
Location		Day	Evening	Night																															
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150A – St Luke’s Anglican Church 900 – St Laurence O’Toole Catholic Church		40 (internal) When in use		-																															

**Table 3 Development Consent Noise Requirements (cont.)**

Development Consent (SSD-6764) Condition	NMP Section
<p><b>Operating Conditions</b></p> <p>4. The Applicant must:</p> <ul style="list-style-type: none"> <li>(a) implement all reasonable and feasible measures to minimise the construction, operational, low frequency, road and rail noise of the development;</li> <li>(b) operate a comprehensive noise management system that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations, and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent;</li> <li>(c) minimise the noise impacts of the development during meteorological conditions when the noise limits in this consent do not apply (see Appendix 6);</li> <li>(d) only use locomotives and rolling stock that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL;</li> <li>(e) co-ordinate noise management at the site with the noise management at Moolarben and Ulan mines to minimise cumulative noise impacts; and</li> <li>(f) carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent.</li> </ul>	<p>Section 5.0</p>
<p><b>Noise Management Plan</b></p> <p>5. Prior to carrying out any development under this consent, unless the Secretary agrees otherwise, the Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> <li>(a) be prepared in consultation with the EPA;</li> <li>(b) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this consent;</li> <li>(c) describe the proposed noise management system in detail; and</li> <li>(d) include a monitoring program that: <ul style="list-style-type: none"> <li>• evaluates and reports on: <ul style="list-style-type: none"> <li>- the effectiveness of the noise management system;</li> <li>- compliance against the noise criteria in this consent; and</li> <li>- compliance against the noise operating conditions;</li> </ul> </li> <li>• includes a program to calibrate and validate the real-time noise monitoring results with the operator-attended monitoring results over time (so the real-time noise monitoring program can be used as a better indicator of compliance with the noise criteria in this consent and trigger for further operator-attended monitoring); and</li> <li>• defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.</li> </ul> </li> </ul>	<p>This NMP</p> <p>Section 1.4 &amp; Section 2.4</p> <p>Section 5.0</p> <p>Section 6.4</p> <p>Section 6.0 &amp; Section 9.0</p> <p>Section 6.5</p> <p>Section 6.3.5</p>
<p>6. The Applicant must implement the approved Noise Management Plan for the development.</p>	<p>This NMP</p>

**Table 3 Development Consent Noise Requirements (cont.)**

Development Consent (SSD-6764) Condition	NMP Section																																										
<b>APPENDIX 6 - NOISE COMPLIANCE ASSESSMENT</b>																																											
<b>Applicable Meteorological Conditions</b>																																											
<p>1. The noise criteria in Table 3 of schedule 3 are to apply under all meteorological conditions except the following:</p> <ul style="list-style-type: none"> <li>(a) wind speeds greater than 3 m/s at 10 m above ground level; or</li> <li>(b) stability category F temperature inversions and wind speeds greater than 2 m/s at 10 m above ground level; or</li> <li>(c) stability category G temperature inversion conditions.</li> </ul>	Section 6.3.6																																										
<b>Determination of Meteorological Conditions</b>																																											
<p>2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be that recorded by the meteorological station located on the site.</p>	Section 6.3.6																																										
<b>Compliance Monitoring</b>																																											
<p>3. Operator-attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent.</p>	Section 6.3																																										
<p>4. This monitoring must be carried out at least 12 times a year, unless the Secretary directs otherwise.</p>																																											
<p>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:</p> <ul style="list-style-type: none"> <li>(a) monitoring locations for the collection of representative noise data;</li> <li>(b) meteorological conditions during which collection of noise data is not appropriate;</li> <li>(c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and</li> <li>(d) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.</li> </ul>																																											
<p>6. The assessment of excessive levels of low frequency noise generated by the mine shall be as follows: Measure/assess C- and A-weighted Leq,T levels over same time period. Where the C minus A level is 15dB or more and:</p> <ul style="list-style-type: none"> <li>• where any of the 1/3 octave noise levels in Table 6-1 are exceeded by up to 5dB and cannot be mitigated, a 2 dB(A) positive adjustment to measured/predicted A weighted levels applies for the evening/night period.</li> <li>• where any of the 1/3 octave noise levels in Table 6-1 are exceeded by more than 5dB and cannot be mitigated, a 5 dB(A) positive adjustment to measured/predicted A weighted levels applies for the evening/night period and a 2dB positive adjustment applies for the daytime period.</li> </ul>	Section 6.3																																										
<p><i>Table 6-1: One-third octave low frequency noise thresholds</i></p> <table border="1"> <thead> <tr> <th style="background-color: #cccccc;">Hz/dB(Z)</th> <th colspan="13" style="background-color: #cccccc;"><b>One-third octave L<sub>Z</sub>eq, 15minute threshold level</b></th> </tr> <tr> <th style="background-color: #cccccc;">Frequency (Hz)</th> <td>10</td><td>12.5</td><td>16</td><td>20</td><td>25</td><td>31.5</td><td>40</td><td>50</td><td>63</td><td>80</td><td>100</td><td>125</td><td>160</td> </tr> <tr> <th style="background-color: #cccccc;">dB(Z)</th> <td>92</td><td>89</td><td>86</td><td>77</td><td>69</td><td>61</td><td>54</td><td>50</td><td>50</td><td>48</td><td>48</td><td>46</td><td>44</td> </tr> </thead> </table>		Hz/dB(Z)	<b>One-third octave L<sub>Z</sub>eq, 15minute threshold level</b>													Frequency (Hz)	10	12.5	16	20	25	31.5	40	50	63	80	100	125	160	dB(Z)	92	89	86	77	69	61	54	50	50	48	48	46	44
Hz/dB(Z)	<b>One-third octave L<sub>Z</sub>eq, 15minute threshold level</b>																																										
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## 2.3 Development Consent General Requirements

Condition 3, Schedule 5 of Development Consent (SSD-6764), outlines the general management plan requirements that are applicable to the preparation of the NMP. **Table 4** presents these requirements and indicates where they are addressed within this NMP.

**Table 4 General Management Plan Requirements**

Development Consent (SSD-6764) Condition	NMP Section
<b>Management Plan Requirements</b>	
3. The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:	Section 2.0
(a) detailed baseline data;	Section 3.0
(b) a description of: <ul style="list-style-type: none"> <li>• the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>• any relevant limits or performance measures/criteria;</li> <li>• the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;</li> </ul>	Section 2.1 & Appendix 1 Section 4.1 Section 4.2
(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	Section 5.0
(d) a program to monitor and report on the: <ul style="list-style-type: none"> <li>• impacts and environmental performance of the development;</li> <li>• effectiveness of any management measures (see c above);</li> </ul>	Sections 6.0 & Section 9.0
(e) a contingency plan to manage any unpredicted impacts and their consequences;	Section 7.0
(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	Sections 9.2 and 9.3
(g) a protocol for managing and reporting any: <ul style="list-style-type: none"> <li>• incidents</li> <li>• complaints</li> <li>• non-compliances with statutory requirements; and</li> <li>• exceedances of the criteria and/or performance criteria; and</li> </ul>	Section 9.1 Section 8.0 Section 9.1 Section 9.1
(h) a protocol for periodic review of the plan.	Section 10.0

## 2.4 Specific Guidance from Regulatory Agencies

The approved NMP<sup>3</sup> was prepared in consultation with the EPA, as required by Condition 5, Schedule 3 of the previous Project Approval Project Approval 05-0021. Consultation was also undertaken with a variety of regulators throughout the assessment and approval of the WEP. A number of additional, specific requirements and commitments for this NMP that arose from this consultation programme were subsequently reflected in Condition 5, Schedule 3 of Development Consent (SSD-6764). Initial consultation for this NMP was undertaken with the EPA on the 23 May 2017 in relation to changing operator attended noise monitoring and real time noise monitoring from Araluen Road to a location closer to the

<sup>3</sup> Latest Version 2 Approved by the DP&E on 20 March 2017

nearest private residence along Ringwood Road. Copies of all relevant consultation are provided in **Appendix 2**.

WCPL received official notification from the EPA (**Appendix 2**) on the 22 June 2017 in regards to the various management plans required under Development Consent (SSD-6764) for their consideration. WCPL also met with the EPA on the 19 June 2017 to discuss in detail the preparation of these required management plans. The EPA had no further comment for this NMP.

## 2.5 Relevant Legislation and Policies

The legislation, guidelines and standards considered during the preparation of this NMP includes:

- *Environmental Planning and Assessment Act 1979*;
- *Protection of the Environment Operations Act 1997*;
- *NSW Industrial Noise Policy (EPA, 2000)*;
- *Interim Construction Noise Guideline (ICNG) (EPA, 2009)*;
- *NSW Road Noise Policy (RNP) (EPA, 2011)*;
- *Rail Infrastructure Noise Guideline (RING) (EPA, 2013)*;
- Roads and Traffic Authority (RTA) Environmental Noise Control Manual (RTA, 2001);
- Department of Environment and Conservation (DEC) Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC, 2007);
- Standards Australia AS 2659.1:1988 Guide to the use of sound measuring equipment – Portable sound level meters;
- Standards Australia AS 1259.2:1990 Acoustics – Sound level meters – Integrating – Averaging;
- Standards Australia AS 2922:1987 Ambient air – Guide to the siting of sampling units;
- Standards Australia AS 2012.1:1990 Acoustics - Measurement of airborne noise emitted by earth-moving machinery and agricultural tractors - Stationary test condition – Determination of compliance with limits for exterior noise; and
- Standards Australia AS 1055.1-1997 Acoustics – Description and measurement of environmental noise – General procedures.

### 2.5.1 Environmental Planning and Assessment Act 1979

The WCP was granted Project Approval by the Minister for Planning on 1 February 2006 pursuant to the s75J of the Environmental Planning and Assessment Act 1979 (EP&A Act).

The WEP was granted Development Consent (SSD-6764) by the Minister for Planning under Part 4 of the EP&A Act on 24 April 2017. Refer to **Section 2.1** that describes the surrender of Project Approval PA05-0021.

Development Consent (SSD-6764) outlines the noise criteria [dB(A)] that WCPL must comply with and sets out the general requirements of this NMP. This NMP has been prepared in accordance with the requirements of Development Consent (SSD-6764).

### 2.5.2 Protection of the Environment Operations Act 1997

The EPA issued EPL 12425 on 8 February 2006 under the POEO Act. The EPL permits noise generating activities to occur at the Mine, subject to the EPL conditions. In consultation



with the EPA, the EPL will be modified (as required) to reflect the Development Consent (SSD-6764) conditions as they relate to noise.

### 3 Baseline Data

#### 3.1 Background Noise Surveys

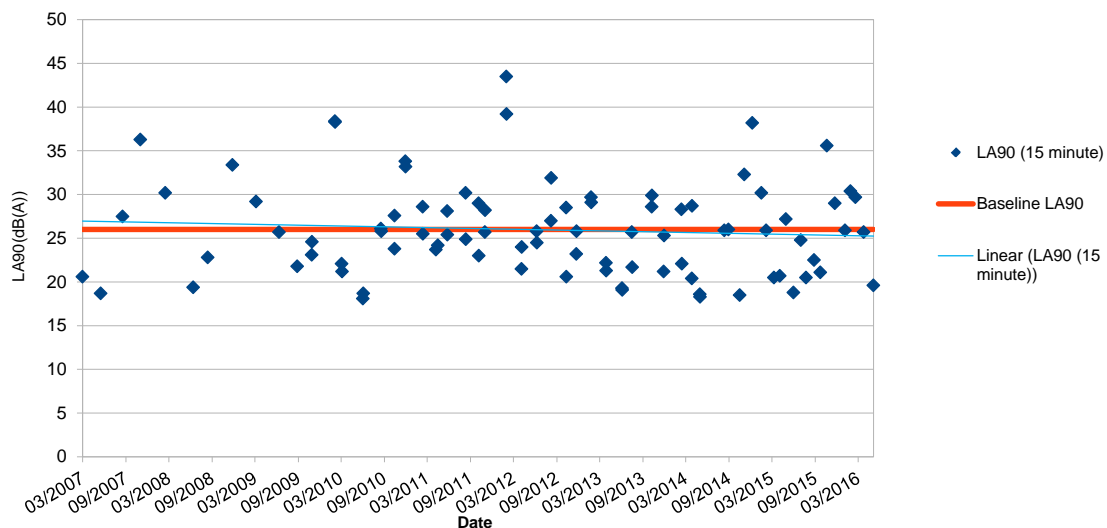
Comprehensive background noise surveys to characterise and quantify the pre-mine noise environment in the area surrounding the Mine were conducted in August and September 2004. The measurement methodology and analysis procedures are described in the WCP EIS (WCPL, 2006), which is available on the Peabody Energy website. Operator-attended background monitoring results for Wollar village are presented in **Table 5**.

**Table 5 Operator-attended Noise Monitoring Results 2004 (dBA)**

Locality	WCP EIS Reference/ Landholder	Measured LA90 (15 minute) Background Level All Noise Sources		
		Day	Evening	Night
<b>Wollar</b>	900 St Laurence O’Toole Catholic Church (boundary)	29	26	26

**Notes:** \*Daytime 7 am to 6 pm, Evening 6 pm to 10 pm, Night-time 10 pm to 7 am.

Operator-attended noise monitoring has been undertaken at Wollar village since 2007. **Figure 2** shows the actual operator-attended night-time noise monitoring results for Wollar village for the period March 2007 to December 2013, compared with the background night-time noise level of 26dB(A) (LA90(15 minute) - all noise sources). Mine noise was noted as being inaudible for the noise levels recorded above 35dB(A) in **Figure 2**.



**Figure 2: Night-time Operator-attended Noise Monitoring Wollar Village – LA90 (15 minute) Actual versus Baseline**

#### 3.2 Operator-attended Noise Compliance Results 2014 and 2015

The WEP NIA (SLR, 2015) includes a review of the operator-attended noise monitoring in 2014 and 2015. Operator-attended noise monitoring is used to evaluate compliance against the Noise Criteria detailed in **Table 6**.

Operator-attended noise monitoring was undertaken on a bi-monthly basis at five locations from January to July 2014 and on a monthly basis at seven locations from August 2014 to July 2015 at the locations presented in **Table 7**.

SLR concluded, due to the implementation of the Wilpinjong noise management strategy as described in **Section 5.0**, WCPL has maintained a strong record of recent compliance with the approved noise limits. A review of the EPL Summary Reports for January 2014 to July 2015 by SLR indicated no exceedance of the relevant intrusive LAeq(15minute) and/or LAeq(1minute) noise limits at privately owned receivers (SLR, 2015).

## 4 Noise Compliance Requirements

In addition to meeting the Noise Criteria nominated in the Development Consent (SSD-6764), WCPL will implement all feasible and reasonable mitigation measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the Mine.

### 4.1 Noise Criteria

WCPL will ensure that the noise generated by the Mine does not exceed the Noise Criteria in **Table 6** at any residence on privately-owned land or at any other specified locations.

**Table 6: Noise Criteria (dBA)**

Property ID & Location <sup>1</sup>	Day <sup>2</sup>	Evening <sup>3</sup>	Night <sup>4</sup>	
	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>A1</sub> (1 minute)
102	36	36	38	45
Wollar Village – Residential <sup>5</sup>	36	37	37	45
All other privately owned land	35	35	35	45
901 – Wollar School		35 (internal) 45 (external) When in use		-
150A – St Luke’s Anglican Church <sup>6</sup> 900 – St Laurence O’Toole Catholic Church <sup>6</sup>		40 (internal) When in use		-

**Notes:**

1. To interpret the locations referred to in **Table 7**; refer to **Figure 3** and **Figure 4**.
2. Day is defined as the period from 7 am to 6 pm Monday to Saturday and 8 am to 6 pm Sunday and Public Holidays.
3. Evening is defined as the period 6 pm to 10 pm.
4. Night is defined as the period from 10 pm to 7 am Monday to Saturday and 10 pm to 8 am Sunday and Public Holidays.
5. Wollar Village EPL intrusive noise limits are currently day 36dBA, evening 35dBA and night 35dBA.
6. Both Properties 150A and 900 are owned by WCPL. Both buildings have been deconsecrated and are no longer places of worship.

As identified in Appendix 6 of Development Consent (SSD-6764) (**Table 3**), the Noise Criteria in **Table 6** apply under all meteorological conditions except for the following:

- Wind speeds greater than 3 m/s at 10 m above ground level; or
- Stability category F temperature inversions and wind speeds greater than 2m/s at 10m above ground level; or
- Stability category G temperature inversion conditions.

WCPL maintains a continuous on-site meteorological monitoring station (**Section 6.2**), the meteorological data is available daily to Dispatch (i.e. open cut control room) and reported to Environmental Department via email and SMS alerts. This data is reviewed daily (or as

required) to examine current and recorded meteorological conditions such as wind speed and temperature lapse rate<sup>4</sup> to determine if temperature inversions are applicable.

The Noise Criteria in **Table 6** do not apply<sup>5</sup> if WCPL has a written agreement with the relevant landowner/s to generate higher noise levels, and WCPL has advised the DP&E in writing of the terms of this agreement or the land is purchased by WCPL.

## 4.2 Performance Indicators

The following performance indicators will be used when assessing the noise performance of the Project:

- Effective implementation of the NMS; and
- Operator-attended noise monitoring results, measured in accordance with the INP, are compliant with the Noise Criteria in **Table 6**.

**Section 7.0** details the Contingency Plan to be implemented to manage any unpredicted noise impacts. **Section 9.0** details the reporting that will be undertaken by WCPL against the above performance indicators.

## 4.3 Mitigation Upon Request

Upon receiving a written request from the owner of any residence on Properties 102, 903, 908 and 933, WCPL will implement additional noise mitigation measures at or in the immediate vicinity of the residence in consultation with the landowner. These measures will be consistent with the measures outlined in the *Voluntary Land Acquisition and Mitigation Policy*. The mitigation measures must be reasonable and feasible and proportionate with the level of predicted impact.

If within three months of receiving this request from the landowner, WCPL and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the [Secretary](#) for resolution.

## 4.4 Notifications

### 4.4.1 Landowners

WCPL will notify in writing the owners of any residence on the land listed in **Table 6** and **Section 4.3** that they have the right to request additional noise mitigation measures to be installed at their residence at any stage during the Project.

### 4.4.2 Tenants

WCPL will notify the tenants of any mine-owned land of their rights under the Development Consent (SSD-6764) where:

- (a) The predictions in the EIS show that noise emissions generated from the Project are likely to be greater than the relevant Noise Criteria in **Table 6**; or
- (b) Operator-attending noise monitoring identifies non-compliance relevant to the tenant.

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<sup>4</sup> The temperature lapse rate is a measure of stable atmospheric conditions and is determined by measuring air temperature at two elevations 58m apart (i.e. 2m and 60m from ground level) and extrapolating the temperature difference over 58m to determine the lapse rate per °C/100m

<sup>5</sup> Condition 3, Schedule 3 of Development Consent (SSD-6764)

#### **4.5 Ulan Road Strategy**

A strategy has been developed for the upgrade and maintenance of Ulan Road between Mudgee and the Ulan Underground Mine, access road (the “Ulan Road Strategy”)<sup>6</sup>. This strategy was developed in conjunction with the MWRC, MCO and UCML and includes measures for reducing the cumulative noise impacts from mine generated traffic using the road.

WCPL have worked with MWRC, MCO and UCML to develop a detailed plan for implementation of the Ulan Road Strategy and will continue to make financial contributions as required, in accordance with Development Consent (SSD-6764).

If there is any dispute between the various parties involved in either the development of the detailed plan or the implementation of the strategy, then any of the parties may refer the matter to the Secretary for resolution.

Prior to carrying out any development under Development Consent (SSD-6764), WCPL shall write to the owners of the residences that are entitled to additional road noise mitigation works under the Ulan Road Strategy who have not sought these mitigation measures yet, and remind them that they are entitled to additional road noise mitigation works under the strategy.

#### **4.6 Acquisition Upon Request**

Upon receiving a written request for acquisition from the owner of any residence on Properties 102, 903, 908, 933 and 959, WCPL must acquire the land in accordance with the procedures in Conditions 5 and 6 of Schedule 4 of Development Consent (SSD-6764).

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<sup>6</sup> Condition 55 and 56, Schedule 3 of Development Consent (SSD-6764)



## 5 Noise Management and Control Measures

WCPL will implement best management practice to minimise the operational, road, and rail noise of the Project to the extent required by the Development Consent (SSD-6764) and EPL12425. WCPL will implement the noise management and control measures consistent with those set-out in the WEP NIA (SLR, 2015), which include:

- Planning Controls;
- Operational Controls; and
- Engineering Controls.

### 5.1 Planning Controls

Planning controls include:

- Coordinating shift changes on-site with the shift changes of MCO and UCML to minimise the potential cumulative traffic impacts of shift changes of the three mines;
- Promoting carpooling to reduce road traffic noise and traffic volumes on Wollar and Ulan Roads;
- Undertaking noise modelling prior to major mine site modifications to determine if predicted noise levels generated from proposed mining activities will result in a change at Private Receiver locations;
- Sound power testing of new mobile fleet, and on an annual basis a sample of mobile equipment and fixed plant operating under dynamic conditions.;
- Refinement of the Mine noise model by using available actual noise monitoring data;
- Negotiation with nearby landholders regarding possible land acquisition or entering into a written negotiated agreement;
- Developing an awareness and understanding of noise issues through site inductions for all staff and contractors at the WCPL;
- Cooperating with RailCorp and ARTC regarding any Noise Abatement Programs involving rail noise; and
- Confirm with ARTC that locomotives and rolling stock are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL.

### 5.2 Operational Controls

Operational controls include:

- Communicating the previous 24 hours' noise levels to key WCPL personnel at operational and management meetings;
- Maintaining all machinery and plant used on-site, as per the manufacturer's requirements, in order to minimise noise generation;
- Operating all machinery and plant used on-site in a proper and efficient manner (e.g. at correct speed) in order to minimise noise generation;
- Employing a dedicated person (Control Room Operator or CRO) for monitoring real-time noise levels during day and night shifts;
- Operating a comprehensive NMS (**Figure 6**);
- Operating a NMS that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations;

- Monitoring weather conditions to assist in identifying and predicting adverse weather conditions (**Section 6.2**);
- Minimising the noise impacts of the Mine in accordance with the NMS when the Noise Criteria in **Table 6** do not apply because of meteorological conditions;
- Carrying out operator-attended noise monitoring as identified by **Table 8**, to determine whether the Project is complying with the relevant Noise Criteria;
- Using the results of continuous real-time monitoring to assist in the implementation of pre-emptive management actions to avoid potential non-compliances;
- Monitoring weather conditions via the on-site meteorological station and where acoustically adverse conditions are experienced or predicted (**Section 5.4**), operational changes are made to avoid or reduce noise impacts;
- Proactively modifying mining operations as required by the NMS;
- Relocating mobile real-time noise monitors to investigate noise levels and community complaints;
- Sending noise complaint notifications to relevant operational personnel; and
- Temporarily suspending or modifying open cut pit activities to reduce noise generated from the Mine in accordance with the NMS.

### 5.3 Engineering Controls

WCPL will continue validation of the noise model described in the WEP, based on attended and unattended monitoring, as the mine progresses and investigate the most effective combination of operational controls (i.e. mobile equipment shutdowns) and noise attenuation of key Pit 8 mobile equipment as required to maintain noise levels at or below 37 dBA at nearby privately-owned dwellings. The results of these findings will be included in further revisions of this NMP, to the satisfaction of the Secretary.

Engineering controls may include the construction of noise bunds, where practical (subject to consultation and approval by DRE). Noise bunds may be required around Pit 8, however their requirement, location and design criteria for noise bunds on the boundary of Pit 8 are subject to further investigation and validation of the noise model (as described above). If noise bunds are required, the details of the location and design will be provided in further revisions of this NMP to the satisfaction of the Secretary.

### 5.4 Meteorological Forecasting

WCPL have been monitoring and assessing noise and meteorological conditions around the Mine since 2004. As a result, WCPL have developed a thorough understanding of the noise environment around the Mine, and the noise enhancing meteorological conditions that can lead to elevated mine noise levels.

WCPL have engaged a third party provider (e.g. MetraWeather) to provide a daily weather forecasting service to assist operations in the prediction of likely adverse meteorological conditions that have the potential to exacerbate noise levels (and dust) generation from the Mine.

A daily report containing meteorological forecast information, which includes temperature, rain and wind, is issued via email to key operational personnel ("notification"). Where adverse meteorological conditions are forecast the notification will alert these personnel that

the NMS may need to be implemented in the next 24 hour period. WCPL personnel also have access to on-site meteorological data listed in **Section 6.2**.

The use of predictive weather forecasting to effectively manage operational conditions is a newly developing technology. WCPL will continue to investigate the implementation of such technology at the Mine for both noise (and air quality) management.

### 5.5 Cumulative Noise Management

WCPL will work with MCO and UCML to minimise the cumulative noise impacts on the surrounding community. Such as:

- Coordinating noise management at the Mine with UCML and MCO to minimise cumulative noise where a cumulative noise impact is identified, this includes coordination of shift times, blast notification and coordinate blast times, data sharing agreement and attended noise monitoring on former private land now owned by MCO to monitor noise profiles from both operations; and
- Implementing, where feasible and reasonable, road noise mitigation measures in accordance with the Ulan Road Strategy in partnership with MWRC, UCML and MCO (**Section 4.5**).

WCPL have also entered into data sharing arrangements, and frequently consult with MCO and UCML to assist in identifying and managing cumulative noise impacts.

### 5.6 Continuous Improvement

WCPL will continue to review and identify practical, effective and efficient noise controls to reduce Mine noise. Where such opportunities are identified and implemented, their effectiveness will be reported in the Annual Review (**Section 9.2**).

### 5.7 Mobile Equipment and Fixed Plant Sound Power Levels

The Sound Power Levels (SWLs) in **Appendix 3** have been sourced from the WEP NIA (SLR, 2015). The SWLs shown in **Appendix 3** relate to mobile equipment and fixed plant operating under load.

WCPL will measure the SWL of new mobile fleet, and on an annual basis a sample of mobile equipment and fixed plant operating under dynamic conditions. WCPL will ~~aim~~ measure the SWL of each item of mobile equipment and fixed plant at least every three years.

The results of the monitoring will be compared to the SWLs in **Appendix 3** or updated SWLs in any future modifications to Development Consent (SSD-6764) (SWL Specification).

Any items of mobile equipment or fixed plant that are above the SWL Specification will be rectified or stood down if WCPL cannot maintain compliance to the applicable noise criteria as identified in **Table 6**.

## 6 Noise Monitoring Program

WCPL utilise a combination of operator-attended and unattended noise monitoring to assess the performance of the Mine against the Noise Criteria from Development Consent (SSD-6467). Operator-attended noise monitoring will be used for determining compliance against the Noise Criteria in **Table 6**. Unattended real-time noise monitoring is primarily utilised as a proactive noise control system; providing noise alerts when predetermined noise levels are triggered so mining operations can be modified where noise levels are influenced by noise from the Project.

### 6.1 Monitoring Locations

Operator-attended noise monitoring locations have been chosen considering the following criteria:

- In any given direction, the site is as close as reasonably practical to the nearest Private Receiver;
- There is no closer Private Receiver that is not monitored;
- The site is unlikely to cause concern to any person residing on nearby private property; and
- The site can be safely accessed by the persons carrying out the noise monitoring.

WCPL will undertake operator-attended noise monitoring as identified in **Table 7 (Figure 3 and Figure 4)**. Real-time noise monitoring units are relocated from time to time, to assist with additional targeted noise monitoring and in response to community complaints. Real-time noise monitoring locations will be reviewed and modified as necessary in response to monitoring results, changes to the operation, or as a result of community consultation.

**Table 7: Noise Monitoring Locations**

Location	Site	Type	Easting <sup>1</sup>	Northing <sup>1</sup>	Justification
<b>St Laurence O'Toole Church</b>	N6	Operator-attended Noise	777299.9	6415716.9	Location based on the nearest community structure to the East of the Mine
<b>Coonaroo</b>	N13	Operator-attended Noise	763758.9	6413471.9	Location based on the nearest community structure to the West of the Mine
<b>Tichular</b>	N14	Operator-attended Noise	778791.9	6408624.7	Location based on the nearest community structure to the South of the Mine
<b>Wollar Village</b>	N15	Operator-attended Noise	777452.0	6416158.9	Location based on the nearest community structure to the South-East of the Mine
<b>Mogo Rd</b>	N17	Operator-attended Noise	780771.0	6420641.0	Location based on the nearest community structure to the North-East of the Mine
<b>Mogo Rd</b>	N19	Operator-attended Noise	782644.5	6424151.1	Location based on the nearest and residential community structure to the North-East of the Mine

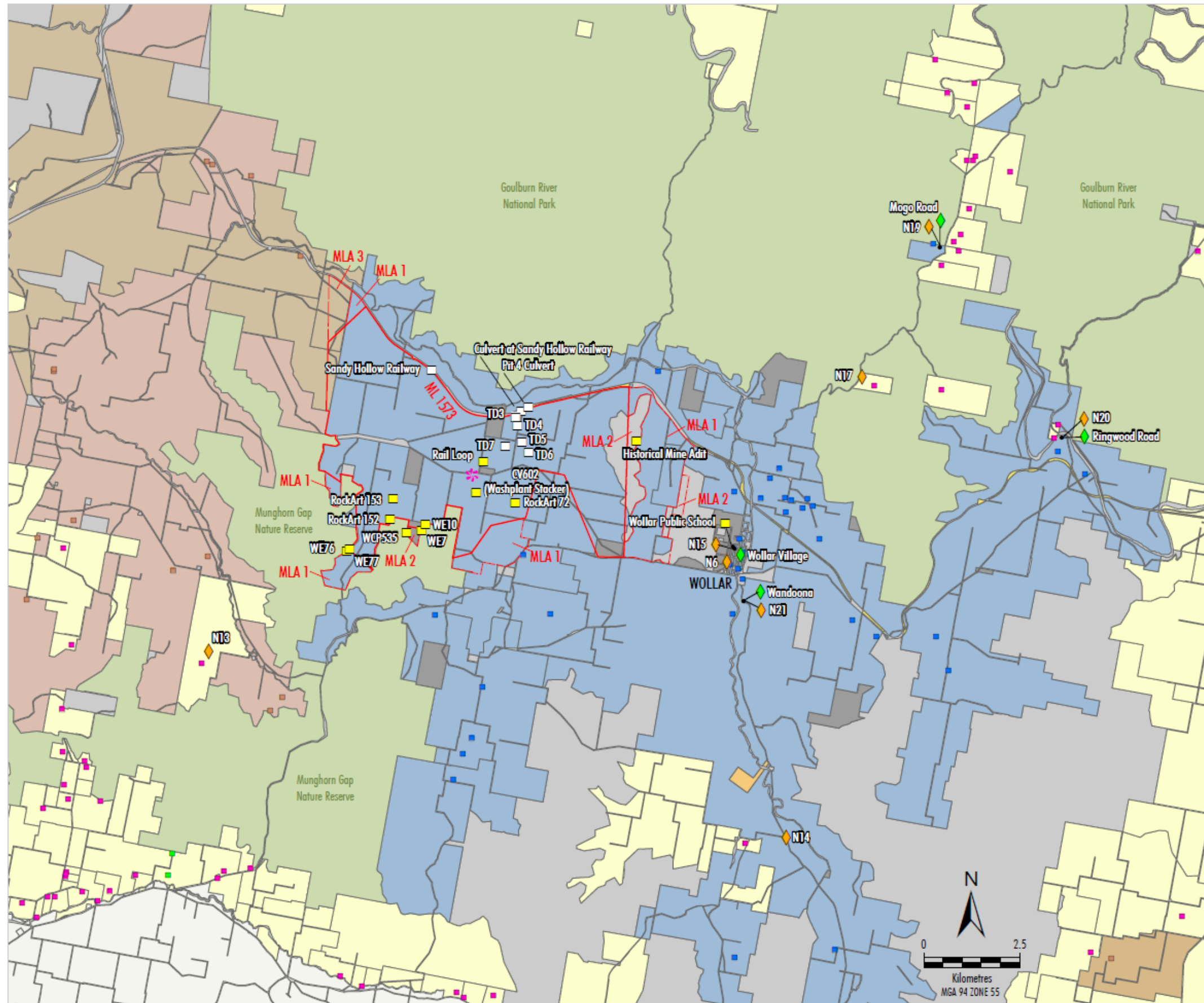
Location	Site	Type	Easting <sup>1</sup>	Northing <sup>1</sup>	Justification
Ringwood Road	N20	Operator-attended Noise	785964.2	6419050.6	Location based near to community residence in discussions with DP&E and EPA on the 23 May 2017 to the East of the Mine.
Wandoona	N21	Operator-attended Noise	777684.4	6414786.2	Location based on recommendations from noise specialist (SLR) review of this NMP in May 2017.
WCPL Rail Loop	-	Meteorology & Inversion	770630.9	6418085.1	Location based on consideration of prevailing meteorological conditions
Wollar Village <sup>4</sup>	-	Real-Time Noise - Fixed	777608.9	6415996.8	Location based on the nearest non-mine owned residence to the South-East of the Mine N15 operator-attended Noise Monitoring (validation of real-time noise monitoring)
Mogo Rd <sup>4</sup>	-	Real-Time Noise - Fixed	782644.5	6424151.1	Location based on the nearest non-mine owned residence to the East of the Mine N19 operator-attended Noise Monitoring (validation of real-time noise monitoring)
Ringwood Road	-	Real-Time Noise - Fixed	785964.2	6419050.6	Location based near to community residence in discussions with DP&E and EPA on the 23 May 2017 to the East of the Mine. N20 operator-attended Noise Monitoring (validation of real-time noise monitoring)
Wandoona <sup>3</sup>	-	Real-Time Noise - Mobile	777684.4	6414786.2	Location based on recommendations from noise specialist (SLR) review of this NMP. N21 operator-attended Noise Monitoring (validation of real-time noise monitoring)

**Notes:**

1. MGA94, Zone 55
2. Monitoring will be undertaken at this location until it can be demonstrated that the noise contribution from the Mine is negligible. At this point, WCPL will notify DP&E and EPA of the results of this monitoring and advise if and when the monitoring at this location will be scaled back or discontinued.
3. The real-time noise monitor at Wandoona may be relocated in response to a complaint or identified noise issue at another location.
4. Where continuous monitors are located at compliance locations (e.g. privately owned receivers), WCPL will conduct a review of the identification/characterisation of mine-related noise by the real-time monitoring system at that location by comparing against observed mine-related noise identified during operator-attended monitoring (i.e. validate the identification of mine related noise and filtering of extraneous noise sources by the real-time system). Refer to **Section 6.5**.

Should circumstances change, WCPL may amend the noise monitoring locations shown in **Table 7** with consideration to the above criteria. WCPL will update this NMP, in consultation with DP&E and the EPA.





- LEGEND**
- Mining Lease Boundary
  - Mining Lease Application Boundary
  - Peabody Energy
  - Bylong Coal Project
  - Moolarben Coal Mine
  - Ulan Coal Mine
  - Crown Land (Special Lease/Licence)
  - Crown Land
  - TransGrid
  - Railway Land
  - Relevant Private Landholder
  - Other Land (Ownership not identified)
  - National Parks and Wildlife Service
  - Peabody Energy Dwelling
  - Ulan/Moolarben Dwelling
  - Private Dwelling
  - Community Building
  - ◆ Noise Monitoring Sites
  - ◆ Attended Noise
  - ◆ Real-time Noise
  - Blasting Monitoring Sites
  - Indicative Blast
  - Fixed Blast
  - ✱ Meteorological Station

Source: WCPL (2017); NSW Dept of Industry (2015);  
NSW Land & Property Information (2015)

Figure 3: Noise Monitoring Locations





LEGEND	
	Peabody Energy
	Crown Land (Special Lease/Licence)
	Crown Land
	Railway Land
	Relevant Private Landholder
1	Landholder Reference Number
	Peabody Energy Dwelling
	Community Building
	Private Dwelling
#	Special Lease/Licence Holder
	Noise Monitoring Sites
	Attended Noise
	Real-time Noise
	Blasting Monitoring Sites
	Fixed Blast
	Air Quality Monitoring Sites
	Ambient Air Quality - Odour
	Static Dust Gauge
	High Volume Air Sampler
	Real-time PM <sub>2.5</sub>
	Real-time PM <sub>10</sub>

Source: WCPL (2017); NSW Dept of Industry (2015); NSW Land & Property Information (2016)

**Peabody**  
WILPINJONG COAL MINE  
Wollar Environmental Monitoring Sites

**Figure 4: Noise Monitoring Locations-Wollar**

## 6.2 Meteorological Monitoring

WCPL maintains a continuous on-site meteorological monitoring station that complies with the requirements of the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales* (DEC, 2007). The location of this meteorological monitoring station is shown on **Figure 3**.

WCPL's meteorological monitoring station is capable of continuous real-time measurement of temperature lapse rate in accordance with the INP (EPA, 2000).

The meteorological station is routinely calibrated by appropriately accredited technicians.

The following parameters are monitored:

- a) Rainfall;
- b) Relative humidity;
- c) Temperature – measured at 2, 10 and 60 m above ground level;
- d) Wind speed – horizontal and vertical;
- e) Wind direction – measured at 10 m above ground level;
- f) Sigma theta;
- g) Pasquill stability classification;
- h) Solar radiation; and
- i) Temperature lapse rate.

Meteorological forecasting will be undertaken as specified in **Section 5.4**.

## 6.3 Operator-attended Noise Monitoring

### 6.3.1 Purpose

Operator-attended noise monitoring will be used to evaluate compliance against the Noise Criteria detailed in **Table 6**.

### 6.3.2 Summary

Operator-attended noise will be undertaken in accordance with **Table 8**.

**Table 8: Operator-attended Noise Monitoring Summary**

Element	Description
<b>Locations</b>	<ul style="list-style-type: none"> <li>As per <b>Table 7</b>, <b>Figure 3</b> and <b>Figure 4</b></li> </ul>
<b>Period</b>	<ul style="list-style-type: none"> <li>Night-time period (10 pm to 7 am) being the most sensitive time period for noise.</li> </ul>
<b>Frequency</b>	<ul style="list-style-type: none"> <li>12 times per year (i.e. one night per month); plus</li> <li>12 times per year (i.e. one night per month) at locations as identified in <b>Table 7</b> to validate real-time noise monitoring data (<b>Section 6.5</b>).</li> </ul>

### 6.3.3 Methodology

Operator-attended noise monitoring will be undertaken at the locations and frequency as outlined in **Table 8** by an independent acoustic consultant and guided by the requirements of the INP (EPA, 2000) and *AS 1055.1-1997 'Acoustics – Description and measurement of*

*environmental noise – General procedures*: Routine operator-attended noise monitoring will be undertaken during night-time periods (10 pm - 7 am).

If any of the Noise Criteria are exceeded, a second measurement will be taken at the same location within 75 minutes of the first measurement. If the second measurement does not exceed the Noise Criteria, as defined in **Table 6**, then the result will be recorded and the attended noise monitoring program resumed.

If the second measurement does exceed the applicable Noise Criteria, then:

- a) The noise consultant will immediately report both results to the WCPL Environment and Community Manager or delegate immediately; and
- b) Upon confirming the exceedances are deemed a non-compliance in accordance with the **Figure 5**, WCPL will report both results to DP&E and EPA immediately, upon confirming the exceedance (**Section 9.0**).

WCPL will:

- a) Take immediate action in accordance with the NMS;
- b) Arrange for additional operator-attended noise monitoring to occur at that site within 1 week; and
- c) Deploy the mobile real-time noise monitor to measure and record the noise at that site for at least a 1 week period.

WCPL will also investigate any changes to the mine operations, and may revisit the noise model on the basis of the noise measurements recorded at the site.

The acoustic noise consultant will consider the modification factors in Section 4 of the INP (EPA, 2000) during the evaluation of attending monitoring results.

The assessment of excessive levels of low frequency noise generated by the mine shall be as follows: Measure/assess C- and A-weighted Leq,T levels over same time period. Where the C minus A level is 15dB or more and:

- Where any of the 1/3 octave noise levels in **Table 9** are exceeded by up to 5dB and cannot be mitigated, a 2 dB(A) positive adjustment to measured/predicted A weighted levels applies for the evening/night period.
- Where any of the 1/3 octave noise levels in **Table 9** are exceeded by more than 5dB and cannot be mitigated, a 5 dB(A) positive adjustment to measured/predicted A weighted levels applies for the evening/night period and a 2dB positive adjustment applies for the daytime period.

**Table 9 One-third Octave Low Frequency Noise Thresholds**

Hz/dB(Z)	One-third octave L <sub>Ze</sub> ,15minute threshold level												
Frequency (Hz)	10	12.5	16	20	25	31.5	40	50	63	80	100	125	160
dB(Z)	92	89	86	77	69	61	54	50	50	48	48	46	44

### 6.3.4 Data Collection

Data and observations are collected in 15 minute periods and the Leq dBA results recorded. The Leq dBC noise levels will also be recorded to assess low frequency noise. All acoustic instrumentation will comply with AS 1259.2-1990 *Acoustics – Sound level meters – Integrating –*

*Averaging*. Comprehensive field notes will be taken to indicate both mine related and non-mine related noise sources and when they occurred. Notes about maximum mine noise levels (source and times) will also be taken. All percentiles (LAmax, LA1, LA10, LA50, LA90, LAmin, LAeq) are measured in A weighting.

Where practicable, the LA1 measurement will be undertaken at 1 m from the dwelling façade and the LAeq measurement within 30 m of the dwelling. Where impracticable, measurements will be undertaken at a suitable and representative location as close to the dwelling as practicable.

### 6.3.5 Evaluation of Compliance

**Tables 10** and **11** summarises the definition used by WCPL in this NMP for the evaluation of compliance with Development Consent (SSD-6764). The reporting requirements and actions that WCPL will take in the event of an exceedance or non-compliance are detailed in **Figure 5** and **Section 6.3.7**.

**Table 10: Definition of an Exceedance**

Term	Definition
<b>Exceedance</b>	An exceedance is deemed to have occurred when an operator-attended noise monitoring result, measured in accordance with the INP and Development Consent (SSD-6764), exceeds the Noise Criteria in <b>Table 6</b> . The noise must be solely attributable to the Mine and under the applicable meteorological conditions ( <b>Section 6.3.6</b> ).

**Table 11: Definition of a Non-Compliance**

Term	Definition
<b>Non-compliance</b>	A non-compliance is deemed to have occurred when a second operator-attended noise monitoring result [measured in accordance with the INP and Development Consent (SSD-6764)], taken within 75 minutes of an exceedance, also exceeds the Noise Criteria in <b>Table 6</b> and either the first and or the second measured noise result is more than 2dBA above the Noise Criteria. Reporting requirements for a non-compliance are detailed in <b>Section 6.3.7</b> .

### 6.3.6 Applicable Meteorological Conditions

The Noise Criteria in **Table 6** are to be applied under all meteorological conditions except for the following:

- Wind speeds greater than 3 m/s at 10 m above ground level; or
- Stability category F temperature inversions and wind speeds greater than 2 m/s at 10 m above ground level; or
- Stability category G temperature inversion conditions.

Except for wind speed at microphone height, the data used for determining meteorological conditions will be that recorded by the meteorological station located on the Mine site.

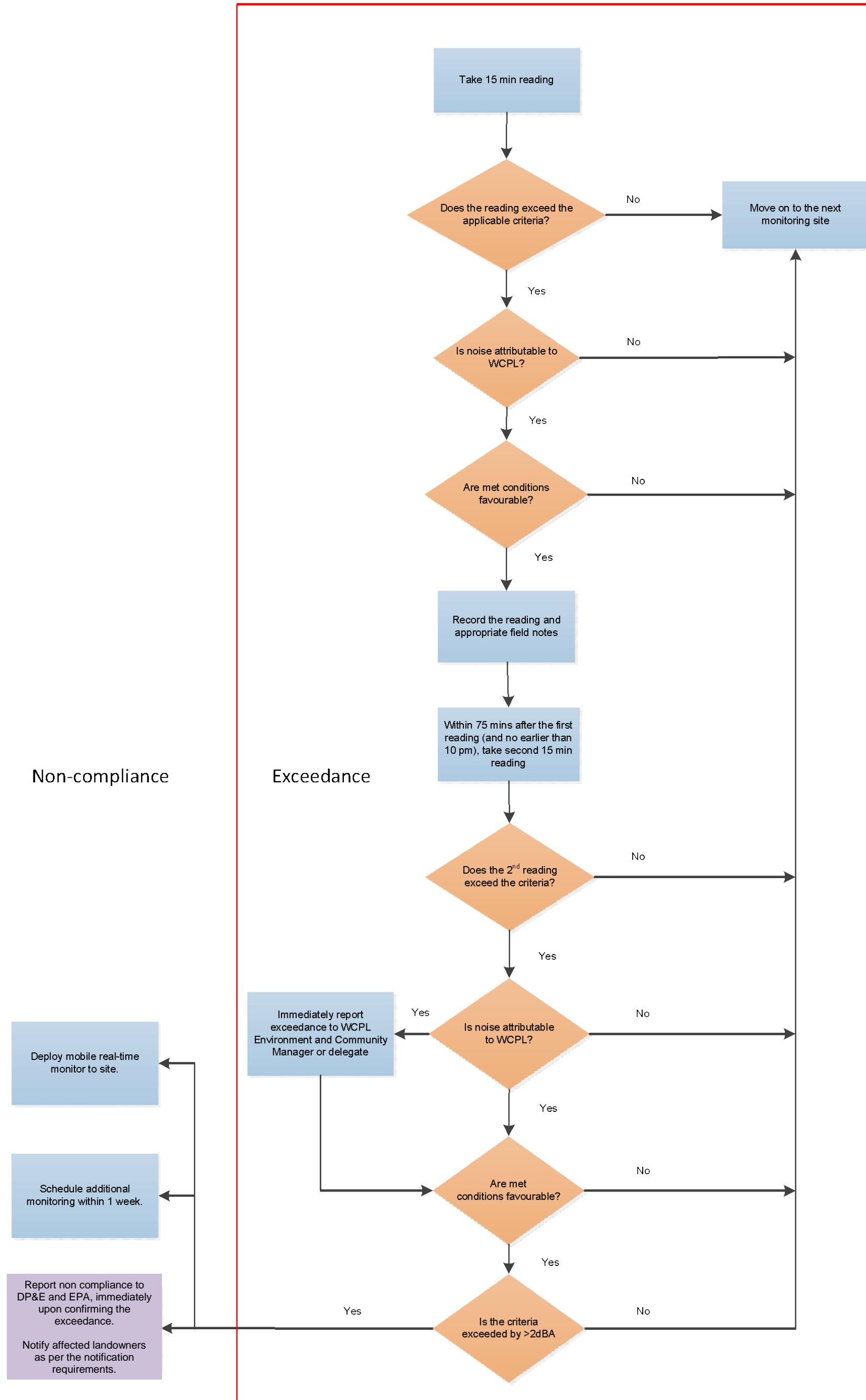
It should be noted that when assessing wind conditions to determine the potential for noise level alteration by the refraction of sound-waves through the atmosphere, meteorological measurements should be undertaken at a height of 10 m above the ground level, in accordance with Section 5 of the INP (EPA, 2000). Local meteorological conditions, including near-surface

winds are measured at the inbuilt meteorological station (2 m); however, in accordance with the INP (EPA, 2000), the 2 m data cannot be used to determine impacts from sound-wave refraction. The 2 m meteorological data is used to assess local meteorological conditions that may increase ambient noise levels including surface winds and rainfall.

### **6.3.7 Response to Non-Compliance or Exceedance**

Where any non-compliance of the Noise Criteria (**Table 6**) has occurred, WCPL will, at the earliest opportunity:

- Report non-compliance to DP&E and EPA, immediately upon confirmation (**section 9.1**).
- Notify affected landowners (**section 9.1**).
- Take all feasible and reasonable and steps to ensure that the non-compliance ceases and does not recur;
- Consider all feasible and reasonable and options for remediation (where relevant) and submit a report to the DP&E describing those options and any preferred remediation measures or other course of action (**Section 9.1**);
- Implement remediation measures as directed by the Secretary; and
- Review and, if necessary, revise this NMP (**Section 10**), to the satisfaction of the Secretary.



**Figure 5: Compliance Review and Evaluation Process**



## 6.4 Real-Time Noise Monitoring

### 6.4.1 Purpose

WCPL has adopted a best practice real-time noise monitoring system to proactively manage operational noise impacts on the surrounding community. The system also provides real-time data:

- Illustrating the current status of compliance; and
- To allow proactive actions to be undertaken to prevent or minimise potential exceedances or non-compliances.

### 6.4.2 Methodology

The system consists of several real-time noise monitoring units that enable near continuous review of the noise levels at the monitoring sites and, if necessary, provide triggers to modify operational activities in accordance with **Figure 6**. The real-time noise monitors transmit statistical noise data, audio recordings and meteorological data through to an on-site computer where data is interpreted by software; providing onscreen and SMS alerts to operational personnel (including CRO). A low alert level is set based on measured noise levels at locations that are representative of the nearest Private Receiver (nominally 2 dBA below the relevant Noise Criteria). Noise alarms adopted by WCPL are identified in **Table 12**.

Data from the real-time noise monitors are viewed regularly throughout every 24 hour period. Reports from the system are received on a daily basis; enabling site personnel to review noise levels recorded in the previous 24 hour period. Recorded data is also reviewed by a specialist noise consultant on a regular basis, providing WCPL with important information on noise trends.

**Table 12 Real-Time Noise Alert**

Trigger	Action Plan	Responsibility
<p><b>Low pass frequency noise level 2 dBA below relevant Noise Criteria measured for two consecutive 15 minute periods.*</b></p> <p>AND:</p> <p><b>Under all meteorological conditions except for those outlined in Section 6.3.6</b></p>	<p>Review the live audio and identify major noise sources. If Mine noise a major noise source then:</p> <ol style="list-style-type: none"> <li>1. Create a priority list of all operating equipment (including contractors) in order of proximity to the noise monitor ("Priority List").</li> <li>2. Then relocate or shut down "Priority 1" equipment on the Priority List.</li> <li>3. Determine if low frequency noise is rising or falling.</li> <li>4. If rising or no change, relocate or shut down "Priority 2" Equipment on Priority List.</li> <li>5. Continue until low frequency noise drops.</li> <li>6. Stagger start-up of shut down equipment according to Priority List (last to first).</li> <li>7. Monitor low frequency levels during start up. If alarm occurs restart process.</li> <li>8. Record details of the investigation and the response to the noise alarm.</li> <li>9. Review of data and response by Environment and Community Manager (or delegate).</li> </ol>	<p>Dispatch Operator and OCE</p>
		ECM

**Notes:** \*The LAeq descriptor describes the energy equivalent average noise level, and is influenced by extraneous noise sources including livestock and early morning bird activity, and often represents an over-estimate of the contribution from mining operations. The low pass frequency noise component (LAeqLF) comprises noise in the 20 Hz to 630 Hz range, and is considered representative of the contribution of measured noise levels associated with mining operations. Two consecutive 15 minute measurements are used to determine the alarm condition so as to limit the impact of transient non-mining noise sources that cause a rapid increase followed by a corresponding decrease in noise levels in excess of what could be reasonably attributable to continuous mining noise.



### 6.4.3 Real-time Response Protocol

Real-time noise monitoring is used by WCPL as an on-going noise management tool to maintain noise levels from the Mine below relevant Noise Criteria at Private Receivers.

WCPL has developed a detailed Real-time Response Protocol (“Protocol”) which has proven effective in proactively managing operational noise impacts (**Figure 6**). The Protocol includes a conservative; tried and tested alert level which WCPL will continue to adopt to ensure that an adequate response to increasing noise levels is implemented to prevent an exceedance of the day, evening or night Noise Criteria (**Table 6**).

Noise investigation triggers are set at a level 2 dBA below the Noise Criteria (**Table 6**), and are used between the hours of 8 pm and 10 am (to minimise false triggers).

In the event of noise, as recorded by the real-time noise monitors, exceeding a noise investigation trigger, an SMS message is sent to the CRO, who will then implement the Protocol.

### 6.5 Calibration and Validation of Real-time Noise Monitoring Results

On an annual basis operator-attended noise monitoring will be undertaken at the real-time noise monitoring locations (as identified in **Table 7**) to calibrate and validate the real-time noise monitoring results with the operator-attended noise monitoring results over time. The data from this monitoring will be reviewed by an appropriate noise consultant and reported in the Annual Review.

### 6.6 Monitoring Records

WCPL will ensure that all noise monitoring records are maintained as follows.

- In a legible form, or in a form that can readily be reduced to a legible form;
- Kept for at least four years after the monitoring or event to which they relate took place; and
- Produced in a legible form to any authorised officer of the EPA who asks to see them.

WCPL will record and maintain the following noise monitoring details:

- The date(s) on which monitoring occurred;
- The time(s) at which monitoring occurred;
- The point at which monitoring occurred; and
- The name of the person who undertook the monitoring.

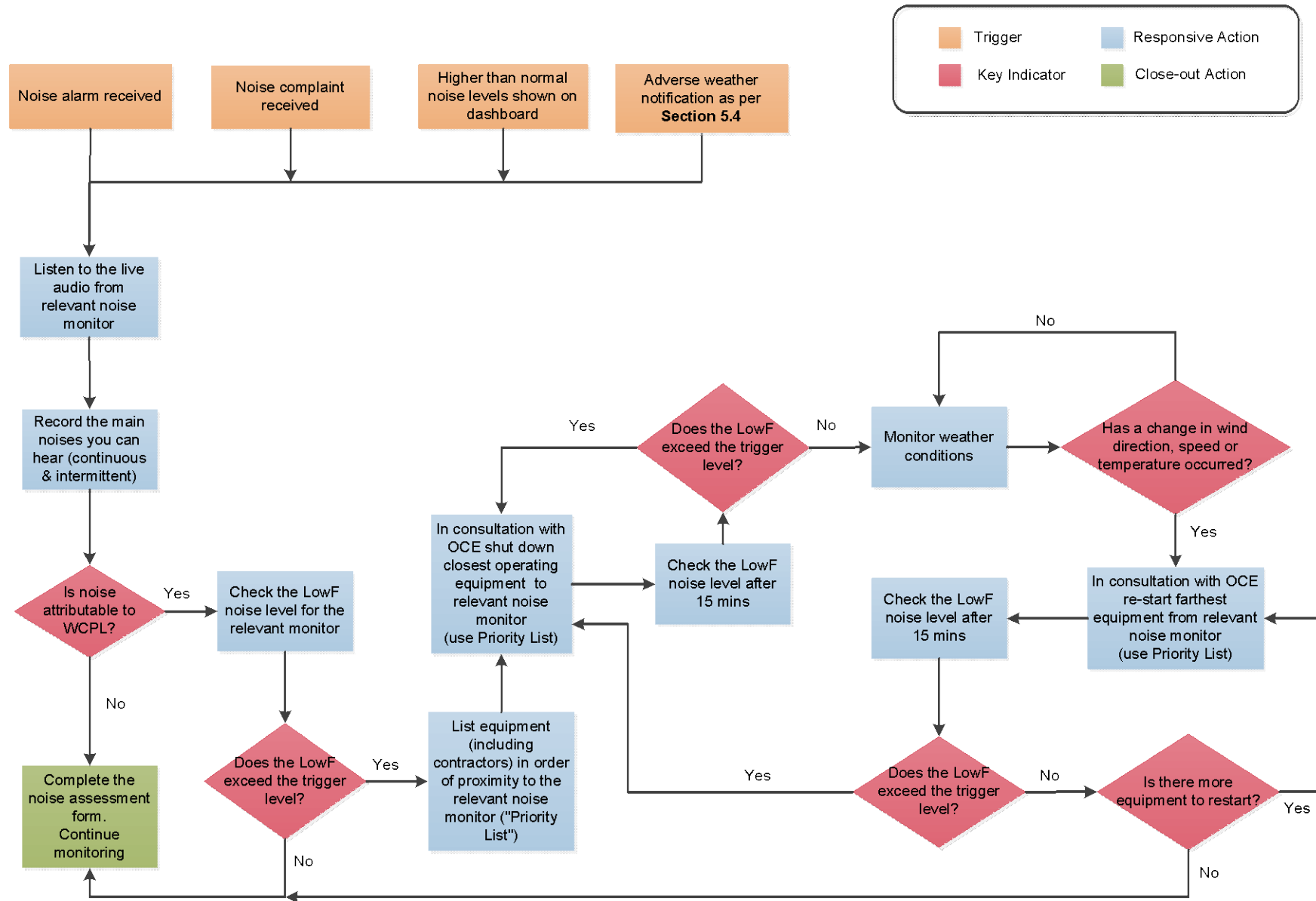


Figure 6: Noise Management System

## 7 Contingency Plan to Manage Unpredicted Impacts

A detailed noise model was developed for the noise impact assessment for the WEP EIS (WCPL 2016). This model includes noise level predictions for current activities at the Mine and a number of future Project scenarios in 2018, 2020, 2024, 2028 and 2031. Sound Power Level testing of on-site equipment has been undertaken as part of the WEP NIA (SLR, 2015).

WCPL has a good understanding of the noise environment surrounding the Mine and has established a comprehensive Noise Management System (**Figure 6**) to monitor and respond to noise management issues. In the event that unpredicted noise impacts occur as a result of mining activities at the Mine, WCPL will:

- Review the current noise management system (controls and monitoring) and modify if required, to ensure it is effective and criteria is being met;
- If the system is effective and Noise Criteria (**Table 6**) is being met, continue implementation of noise management system;
- If the system is not effective and Noise Criteria (**Table 6**) is being exceeded, undertake reporting in accordance with **Section 9.1**;
- Develop and implement additional noise management or mitigation measures in consultation with the affected landowners;
- Undertake an equipment fleet and fixed plant noise audit and compare against the recent noise model; and
- Undertake follow-up noise monitoring to assess the effectiveness of the additional measures.
- Revise NMP (as necessary) to reflect changes.

## 8 Complaints Response Protocol

WCPL operates a Community hotline (**1300 606 625**) for the purpose of receiving complaints from members of the public in relation to mining activities at the Mine. The hotline number is advertised on the WCPL Website.

WCPL has developed a Complaint Response Protocol to reply to community concerns that relate to noise and other matters.

Response to a noise complaint will include:

1. Accurately recording all relevant details regarding the complaint in a Complaints Register, including:
  - The date and time of the complaint;
  - The method by which the complaint was made;
  - Any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
  - The nature of the complaint;
  - The action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and;
  - If no action was taken by the licensee, the reasons why no action was taken;

2. Undertaking investigations into the likely cause of the complaint using relevant information including meteorological conditions, mining activities occurring and noise monitoring results at the time of the complaint;
3. Assessing and implementing additional noise control measures, if required; and
4. Monitoring and assessing the effectiveness of the additional controls.

In the event of a complaint where noise levels are demonstrated to be below the relevant Noise Criteria (**Table 6**), every effort will be made to make the complainant fully aware of the monitoring and reporting procedures used at WCPL. Where a mutually agreed outcome cannot be reached in the first instance, a mobile real-time noise monitor may be offered to the complainant as a means to gather further site specific noise data.

In the event of a complaint where noise levels are demonstrated to be above the Noise Criteria (**Table 6**), WCPL will advise the complainant of the exceedance.

Records of all complaints will be kept for at least four years after the complaint was made. Records will be produced to any authorised officer of the EPA who asks to see them.

The Complaints Register will be uploaded to the WCPL website and updated monthly.

## 9 Reporting

The following external reporting will be undertaken by WCPL in accordance with the conditions of the Development Consent (SSD-6764), EPL 12425 and Mining Leases:

- Exceedance and non-compliance noise incident reporting;
- Annual Review;
- Independent Environmental Audit;
- EPL Annual Return; and
- Website updates.

A copy of this NMP will be made available to the WCPL Community Consultative Committee (CCC) and MWRC. In addition, a copy will be made available for viewing to members of the public at the Mine and on the website.

### 9.1 Non-compliance Reporting

A non-compliance of the Noise Criteria in **Table 6** will be reported DP&E and EPA immediately, upon confirming the exceedance, in accordance with **Figure 5**.

As soon as practicable after obtaining monitoring results showing an exceedance with any relevant criteria in **Table 6**, WCPL will notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the project is again complying with the relevant criteria.

Within seven days of the date of notification of non-compliance (refer **Figure 5**), WCPL will provide a detailed report to the DP&E and EPA that:

1. Describes the date, time, and nature of the non-compliance;
2. Identifies the cause (or likely cause) of the non-compliance;
3. Describes what action has been taken to date; and
4. Describes the proposed measures to address the non-compliance.

### 9.2 Annual Review

At the end of March each year, WCPL will review the environmental performance of the Mine and submit an Annual Review report to the DP&E. This report will:

- a) Describe the development (including any rehabilitation) that was carried out in the past year, and the development that is proposed to be carried out over the next year;
- b) Include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the:
  - Relevant statutory requirements, limits or performance measures/criteria;
  - Monitoring results of previous years; and
  - Relevant predictions in the WEP EIS (WCPL, 2016);
- c) Identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
- d) Identify any trends in the monitoring data over the life of the project and report any exceedances that are discovered;

- e) Identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
- f) Describe what measures will be implemented over the next year to improve the environmental performance of the project.

A copy of the Annual Review will be made publicly available on the WCPL website.

### **9.3 Independent Environmental Audit**

Within a year of commencing development under (SSD-6764), and every three years thereafter (unless the Secretary directs otherwise) WCPL will commission an Independent Environmental Audit (IEA) of the Mine. This audit will:

- a) Be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;
- b) Include consultation with the relevant agencies;
- c) Assess the environmental performance of the project and assess whether it is complying with the requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
- d) Review the adequacy of strategies, plans or programs required under the abovementioned approvals; and
- e) Recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals; and
- f) Be conducted and reported to the satisfaction of the Secretary.

Within three months of commissioning this audit, or as otherwise agreed by the Secretary, WCPL will submit a copy of the audit report to the Secretary, together with its response to any recommendation contained in the audit report and a timetable for the implementation of these recommendations as required. WCPL must implement these recommendations, to the satisfaction of the Secretary.

A copy of the audit report (and WCPL's response to any recommendations) will be made publicly available on the WCPL website.

### **9.4 EPL Reporting**

WCPL will prepare and submit an Annual Return comprising a certified Statement of Compliance and a signed Monitoring and Complaints Summary to the EPA at the end of each EPL reporting period.

The Annual Return for the reporting period will be supplied to the EPA by registered post not later than 60 days after the end of each reporting period. WCPL will retain a copy of the Annual Return for a period of at least four years after the Annual return was due to be supplied to the EPA.

WCPL also submit on a six monthly basis to the EPA a noise compliance report as required by EPL condition R4.1.



## 9.5 Website Updates

A comprehensive summary of the operator-attended noise monitoring results will be made publicly available at WCPL and on its website and will be updated every three months. WCPL will continue to review and improve public reporting of noise data in consultation with noise specialists and DP&E and EPA.

WCPL will also ensure that any information relevant to noise management is uploaded to the website<sup>7</sup> (and kept up to date). This includes:

- Current statutory approvals;
- Approved strategies, plans or programs required under Development Consent (SSD-6764);
- A complaints register (updated monthly);
- Minutes of Community Consultative Committee (CCC) meetings;
- The last five Annual Reviews;
- A copy of any IEAs and WCPL's response to any recommendations in any audit; and
- Any other matter required by the Secretary.

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<sup>7</sup> <https://www.peabodyenergy.com/Operations/Australia-Mining/New-South-Wales-Mining/Wilpinjong-Mine/Approvals,-Plans-Reports>

## 10 Review

Within three months of any of the following:

- a) The Annual Review;
- b) A noise exceedance incident report;
- c) An Independent Environmental Audit;
- d) The approval of any modification to Development Consent (SSD-6764);
- e) A direction of the Secretary; and

WCPL will review, and if necessary revise, this NMP to the satisfaction of the Secretary.

WCPL will also review and if necessary revise this NMP, when there are changes to the EPL (relating to noise) and in response to a relevant change in technology, legislation, operations or Pollution Reduction Programs.

Where the review of the NMP leads to a revision, then within 4 weeks of the review the revised NMP will be submitted to the Secretary for approval, unless otherwise agreed with the Secretary.

To ensure this NMP is updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development, WCPL may submit this NMP at any time. With the agreement of the Secretary, WCPL may also submit this NMP on a staged basis.

The Secretary may approve a revised NMP under this consent, or the staged submission, at any time. With the agreement of the Secretary, WCPL may prepare the revised NMP without undertaking consultation with all parties nominated under the applicable condition in this consent.

### 10.1 Independent Review Procedure

If a Private Receiver considers the Mine to be exceeding the Noise Criteria in **Table 6**, then he/she may ask the Secretary in writing for an independent review of the impacts of the Mine on his/her land.

If the Secretary is satisfied that an independent review is warranted, then within two months of the Secretary's decision, WCPL will:

- a) Commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:
  - Consult with the landowner to determine his/her concerns;
  - Conduct monitoring to determine whether WCPL is complying with the Noise Criteria in **Table 6**; and
  - If WCPL is not complying with the Noise Criteria then:
    - Determine if more than one mine is responsible for the exceedance, and if so, the relative share of each mine regarding impact on the land;
    - Identify the measures that could be implemented to ensure compliance with the Noise Criteria; and
- b) Give the Secretary and landowner a copy of the independent review.

## 11 Responsibilities

**Table 13: Management Plan Responsibilities**

Responsibility	Task	Timing
<b>General Manager</b>	Ensure that adequate resources are available to effectively implement requirements of this NMP	During ongoing and budget planning
	Recommend the acquisition of noise affected properties	As required
<b>Environment and Community Manager</b>	Notify DP&E and EPA of any non-compliance of the Noise Criteria in accordance with Section 9.1	Immediately upon confirming a non-compliance
	Ensure that all noise related complaints are responded to in accordance with the Complaints Response Protocol	Following a complaint
	Ensure that all regulatory reporting is undertaken in relation to this NMP	As required
	Coordinate relevant reviews of this NMP in accordance with <b>Section 10</b>	As required
	Ensure that all employees and contractors are given adequate training in environmental awareness, legal responsibilities, and noise control methods	Within 3 months of approval of this this NMP and as required
	Amend noise monitoring locations in consultation with DP&E and EPA	As required
	Initiate response to exceedance of criteria in accordance with <b>Section 6.3.7</b>	At the earliest opportunity following an exceedance
	Implement contingency plan in the event of unpredicted impacts ( <b>Section 7</b> )	As required
	Respond to requests for acquisition and noise mitigation from affected landowners where required	Upon receiving written request
	Negotiate and organise additional noise mitigation measures for affected landowners	Upon receiving written request
	Negotiate with landowners affected by noise regarding possible acquisition or entering into written agreements	As required
	Notify affected landowners and tenants as required by <b>Section 4.4</b>	As required
	Commission a suitably qualified, experienced and independent expert to undertake an independent review of mine impacts on affected landowners, if requested by the Secretary, as per <b>Section 10.1</b>	When requested by the Secretary
	Work with MWRC, MCO and UCML to implement the Ulan Road Strategy and organise financial contributions as required	Completed
	Organise noise modelling prior to major mine site modifications to determine if predicted noise levels generated from proposed mining activities will result in a change at Private Receiver locations	Prior to major mine site modifications
	Organise refinement of noise model using available actual noise monitoring data	During noise modelling
Cooperate with RailCorp and ARTC regarding any Noise Abatement Programs involving rail noise	As required	

Responsibility	Task	Timing
	Review and identify practical, effective and efficient noise controls to reduce Mine noise. Where such opportunities are identified and implemented, their effectiveness will be reported in the Annual Review	As required
	Where cumulative noise impacts are identified coordinate noise management at the Mine with the noise management at UCML and MCO	As required
	Prior to construction of any noise bunds, consult and gain approval from relevant authorities.	Prior to construction of any noise bunds
<b>Environmental Advisor</b>	Maintain the comprehensive noise management system	As required
	Relocate temporary real-time noise monitors to investigate noise levels and community complaints	As required
	Send noise complaint notifications to relevant operational personnel	As required
	Ensure monitoring is undertaken in accordance with the Noise Monitoring Program as outlined in <b>Section 6</b> .	As required
	Manage program to calibrate and validate real-time noise monitoring results	As required
	Coordinate review of data by a specialist noise consultant on a regular basis	At least annually
	Prepare all statutory reports relating to this NMP	As required
	Report on Continuous Improvement opportunities in the Annual Review when identified.	Annually (Annual Review)
	Update the WCPL website as per <b>Section 9.5</b>	As required
	Regularly review noise monitoring data to ensure compliance with relevant Noise Criteria <b>Table 4</b>	As required
	Review the performance of the noise monitoring program and effectiveness of the this NMP	As required
	Ensure all records relating to this NMP are managed in accordance with the EPL	As required
<b>Maintenance Manager</b>	Ensure that all new equipment purchases comply with the relevant noise specification (i.e. sound power level testing)	During equipment procurement and commissioning
	Maintain all machinery and plant used on-site, as per the manufacturer's requirements, in order to minimise noise generation	In accordance with manufacturer's requirements
<b>OCE</b>	Construct noise bunds in consultation with Environment and Community Manager, where practical	As required
	Respond to noise alerts and implement on-site noise control measures	In accordance with the NMS
	Alter or relocate operational activities to achieve compliance with the Noise Criteria <b>Table 4</b> of the NMS	In accordance with the NMS
<b>Dispatch Operator</b>	Respond to noise alerts and advise the OCE	In accordance with the NMS
	Monitor weather conditions to assist in identifying and predicting adverse weather conditions	Daily

Responsibility	Task	Timing
	Monitor real-time noise levels during day and night shifts	During day and night shifts
<b>All employees and contractors</b>	Operate all machinery and plant used on-site in a proper and efficient manner in order, to minimise noise generation	As required

## 12 References

ANZECC 1990, *Guideline to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration*

DEC 2007, *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*

EPA 2000, *NSW Industrial Noise Policy*

EPA 2011, *NSW Road Noise Policy*

Heggies Pty Ltd 2005, *Wilpinjong Coal Project, Construction, Operation and Transportation Noise and Blasting Impact Assessment, Report 30-1313R1*

ISO 4872 *Acoustics – Measurement of airborne noise emitted by construction equipment intended for outdoor use- method for determining compliance with noise limits*

ISO 6395 *Earth-moving machinery – Determination of sound power level noise emissions – Dynamic test conditions*

ISO 9614-1 *Determination of sound power levels of noise sources using sound intensity’ – Part 1 Measurement at discrete points*

ISO 9614-2 *Determination of sound power levels of noise sources using sound intensity’ – Part 2 Measurement by scanning*

RTA 2001, *Environmental Noise Control Manual*

SLR 2013, *Wilpinjong Coal Mine Modification Noise and Blasting Impact Assessment*

Standards Australia 1987, *AS 2922:1987 Ambient air – Guide to the siting of sampling units*

Standards Australia 1988, *AS 2659.1:1988 Guide to the use of sound measuring equipment – Portable sound level meters*

Standards Australia 1990, *AS 1259.2:1990 Acoustics – Sound level meters – Integrating – Averaging*

Standards Australia 1990, *AS 2012.1:1990 Acoustics - Measurement of airborne noise emitted by earth-moving machinery and agricultural tractors - Stationary test condition – Determination of compliance with limits for exterior noise*

Standards Australia 1997, *AS 1055.1:1997 Acoustics – Description and measurement of environmental noise*

Vipac Engineers and Scientists Ltd (Vipac) 2013, *Sound Power Testing of Mobile Plant Fleet, June 2013*

WCPL 2006, *Wilpinjong Coal Project Environmental Impact Statement*

WCPL 2016, *Wilpinjong Extension Project Environmental Impact Statement*

SLR 2015, *Wilpinjong Extension Project Noise and Blasting Assessment*



## Appendix 1: Noise Management Plan Requirements

### Schedule 2 of Development Consent (SSD-6764)

Consent/Licence	Condition	Requirement	Section
Development Consent	Schedule 2 Condition 1	In addition to meeting the specific performance criteria established under this consent, the Applicant must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the development.	4.0
Development Consent	Schedule 2 Condition 2	The Applicant must carry out the development: (a) generally in accordance with the EIS and the Wilpinjong Coal Project EIS; and (b) in accordance with the conditions of this consent. <i>Note: The general layout of the development is shown in Appendix 2.</i>	2.0
Development Consent	Schedule 2 Condition 3	If there is any inconsistency between documents listed in condition 2(a) above, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.	2.1
Development Consent	Schedule 2 Condition 4	The Applicant must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: (a) any strategies, plans, programs, reviews, reports, audits or correspondence that are submitted in accordance with this consent (including any stages of these documents); (b) any reviews, reports or audits commissioned by the Department regarding compliance with this consent; and (c) the implementation of any actions or measures contained in these documents.	10
Development Consent	Schedule 2 Condition 9	<p>Within 6 months of the commencement of development under this consent, or as otherwise agreed by the Secretary, the Applicant must surrender the existing project approval (MP 05-0021) for the Wilpinjong Coal Project in accordance with Section 8P of the EP&amp;A Regulation.</p> <p>Following the commencement of development under this consent, and prior to the surrender of the project approval (MP 05-0021), the conditions of this consent shall prevail to the extent of any inconsistency with the conditions of MP 05-0021.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> • Any existing management and monitoring plans/strategies/programs/protocols/committees under the existing approval for the Wilpinjong Coal Project will continue to apply until the approval of the comparable plan/strategy/program/protocol/committee under this consent.</li> <li><input type="checkbox"/> • This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&amp;A Act. Surrender of a consent should not be understood as implying that works legally constructed under a valid consent can no longer be legally maintained or used.</li> </ul>	2.0

Consent/Licence	Condition	Requirement	Section
Development Consent	Schedule 2 Condition 13	The Applicant must ensure that all plant and equipment used on site, or to monitor the performance of the development, is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	5.2

Schedule 3 of Development Consent (SSD-6764)

Consent/Licence	Condition	Requirement	Section
Development Consent	Schedule 3 Condition 22	For the life of the development, the Applicant must ensure that there is a meteorological station operating in the vicinity of the site that: (a) complies with the requirements in <i>Approved Methods for Sampling of Air Pollutants in New South Wales</i> guideline; and (b) is capable of continuous real-time measurement of temperature inversions in accordance with the <i>NSW Industrial Noise Policy</i> , unless a suitable alternative is approved by the Secretary following consultation with the EPA.	6.2
Development Consent	Schedule 3 Condition 55	The Applicant must make contributions towards the implementation of the Ulan Road Strategy (ARRB Group, December 2011). If there is any dispute about the implementation of the strategy, then any of the parties involved may refer the matter to the Secretary for resolution	4.5
Development Consent	Schedule 3 Condition 56	Prior to carrying out any development under this consent, the Applicant shall write to the owners of the residences that are entitled to additional road noise mitigation works under the Ulan Road Strategy (ARRB Group, December 2011) who have not sought these mitigation measures yet, and remind them that they are entitled to additional road noise mitigation works under the strategy.	4.5

Schedule 4 of Development Consent (SSD-6764)

Consent/Licence	Condition	Requirement	Section
Development Consent	Schedule 4 Condition 1	<p>Within 1 month of the date of this consent, the Applicant must:</p> <p>(a) notify in writing the owners of:</p> <ul style="list-style-type: none"> <li>the residences listed in Table 1 of schedule 3 that they have the right to require the Applicant to acquire their land at any stage during the development;</li> <li>any residence on the land listed in Table 2 of schedule 3 that they have the right to request the Applicant to ask for additional noise mitigation measures to be installed at their residence at any stage during the development; and</li> <li>any privately-owned land within 2 kilometres of the approved open cut mining pit/s that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated;</li> </ul> <p>(b) notify the tenants of any mine-owned land of their rights under this consent; and</p> <p>(c) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EIS identify that dust emissions generated by the development are likely to be greater than the relevant air quality criteria in schedule 3 at any time during the life of the development.</p>	4.3 and 4.5
Development Consent	Schedule 4 Condition 2	<p>Prior to entering into any tenancy agreement for any land owned by the Applicant that is predicted to experience exceedances of the recommended dust and/or noise criteria, the Applicant must:</p> <p>(a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and</p> <p>(b) advise the prospective tenants of the rights they would have under this consent, to the satisfaction of the Secretary</p>	4.4.2
Development Consent	Schedule 4 Condition 3	<p>As soon as practicable after obtaining monitoring results showing:</p> <p>(a) an exceedance of any relevant criteria in schedule 3, the Applicant must notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria; and</p> <p>(b) an exceedance of the relevant air quality criteria in schedule 3, the Applicant must send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).</p>	9.1
Development Consent	Schedule 4 Condition 4	<p>If an owner of privately-owned land considers the development to be exceeding the relevant criteria in schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land.</p> <p>If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision the Applicant must:</p>	7.0 and 10.1

Consent/Licence	Condition	Requirement	Section
		<p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:</p> <ul style="list-style-type: none"> <li>• consult with the landowner to determine his/her concerns;</li> <li>• conduct monitoring to determine whether the development is complying with the relevant criteria in schedule 3; and</li> <li>• if the development is not complying with these criteria, then identify the measures that could be implemented to ensure compliance with the relevant criteria; and</li> </ul> <p>(b) give the Secretary and landowner a copy of the independent review.</p> <p><i>Note: Where the independent review finds that the development is not complying with applicable criteria, the Department may take enforcement action under the EP&amp;A Act to ensure compliance with the consent.</i></p>	
Development Consent	Schedule 4 Condition 5	<p>Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant must make a binding written offer to the landowner based on:</p> <p>(a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development, having regard to the:</p> <ul style="list-style-type: none"> <li>• existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and</li> <li>• presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date;</li> </ul> <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> <li>• relocating within the Mid-Western Regional Council local government area, or to any other local government area determined by the Secretary; and</li> <li>• obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and</li> </ul> <p>(c) reasonable compensation for any disturbance caused by the land acquisition process.</p> <p>However, if at the end of this period, the Applicant and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.</p> <p>Upon receiving such a request, the Secretary will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:</p> <ul style="list-style-type: none"> <li>• consider submissions from both parties;</li> <li>• determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;</li> <li>• prepare a detailed report setting out the reasons for any determination; and</li> <li>• provide a copy of the report to both parties.</li> </ul>	4.6

Consent/Licence	Condition	Requirement	Section
		<p>Within 14 days of receiving the independent valuer's report, the Applicant must make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.</p> <p>However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.</p> <p>Within 14 days of this determination, the Applicant must make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.</p> <p>If the landowner refuses to accept the Applicant's binding written offer under this condition within 6 months of the offer being made, unless the Secretary determines otherwise, then the Applicant's obligations to acquire the land shall cease.</p>	
Development Consent	Schedule 4 Condition 6	The Applicant must pay all reasonable costs associated with the land acquisition process described in condition 5 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.	4.6

Schedule 5 of Development Consent (SSD-6764)

Consent/Licence	Condition	Requirement	Section
Development Consent	Schedule 5 Condition 2	<p>The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&amp;A Act or EP&amp;A Regulation.</p> <p>Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:</p> <ul style="list-style-type: none"> <li>(a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;</li> <li>(b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and</li> <li>(c) implement reasonable remediation measures as directed by the Secretary.</li> </ul>	5.0 and 6.3.7
Development Consent	Schedule 5 Condition 4	<p>By the end of March each year, the Applicant must submit a review of the environmental performance of the development for the previous calendar year to the satisfaction of the Secretary. This review must:</p> <ul style="list-style-type: none"> <li>(a) describe the development (including any rehabilitation) that was carried out in the past year, and the development that is proposed to be carried out over the next year;</li> <li>(b) include a comprehensive review of the monitoring results and complaints records of the development over the past year, which includes a comparison of these results against the: <ul style="list-style-type: none"> <li>• relevant statutory requirements, limits or performance measures/criteria;</li> <li>• monitoring results of previous years; and</li> <li>• relevant predictions in the EIS;</li> </ul> </li> <li>(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</li> <li>(d) identify any trends in the monitoring data over the life of the development;</li> <li>(e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and</li> <li>(f) describe what measures will be implemented over the next year to improve the environmental performance of the development.</li> </ul> <p>Note: The “Post Approval Requirements for State Significant Developments - Annual Review Guideline 2015, NSW Government, October 2015” (or its latest version) provides a reporting framework to integrate the reporting requirements of the Annual Review required by the Department under the development consent and the Annual Environment Management Report (AEMR) required under the Mining Lease.</p>	9.2



Consent/Licence	Condition	Requirement	Section
Development Consent	Schedule 5 Condition 5	<p>Within 3 months of:</p> <ul style="list-style-type: none"> <li>(a) the submission of an annual review under condition 4 above;</li> <li>(b) the submission of an incident report under condition 8 below;</li> <li>(c) the submission of an audit under condition 10 below; and</li> <li>(d) the approval of any modification to the conditions of this consent; or</li> <li>(e) a direction of the Secretary under condition 4 of schedule 2;</li> </ul> <p>the Applicant must review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.</p> <p>Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted to the Secretary for approval, unless otherwise agreed with the Secretary.</p> <p><i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.</i></p>	10
Development Consent	Schedule 5 Condition 6	<p>To ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development, the Applicant may submit revised strategies, plans or programs required under this consent at any time. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis.</p> <p>The Secretary may approve a revised strategy, plan or program required under this consent, or the staged submission of any of these documents, at any time. With the agreement of the Secretary, the Applicant may prepare the revised or staged strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this consent.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>• <i>While any strategy, plan or program may be submitted on a progressive basis, the Applicant will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times.</i></li> <li>• <i>If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.</i></li> <li>• <i>For the avoidance of doubt, existing approved management plans, strategies or monitoring programs for the Wilpinjong Coal Project will continue to apply until the approval of a similar plan, strategy or program under this consent (see condition 9 of schedule 2).</i></li> </ul>	10

Consent/Licence	Condition	Requirement	Section
Development Consent	Schedule 5 Condition 8	The Applicant must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	9.1
Development Consent	Schedule 5 Condition 9	The Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.	9.5
Development Consent	Schedule 5 Condition 10	<p>Within a year of commencing development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:</p> <p>(a) be conducted by a suitably qualified lead auditor and suitably qualified, experienced and independent team of experts in any field specified by the Secretary, whose appointment has been endorsed by the Secretary;</p> <p>(b) include consultation with the relevant agencies;</p> <p>(c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);</p> <p>(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;</p> <p>(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under the abovementioned approvals; and</p> <p>(f) be conducted and reported to the satisfaction of the Secretary.</p> <p><i>Note: The "Post Approval Requirements for State Significant Developments - Independent Audit Guideline, NSW Government, October 2015" (or its latest version) provides an audit and reporting framework for the independent audit that will guide compliance with this condition.</i></p>	9.3
Development Consent	Schedule 5 Condition 11	Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of these recommendations as required. The Applicant must implement these recommendations, to the satisfaction of the Secretary.	9.3
Development Consent	Schedule 5 Condition 11	<p>From the commencement of development under this consent, the Applicant shall:</p> <p>(a) Make copies of the following information publicly available on its website:</p> <ul style="list-style-type: none"> <li>• the EIS;</li> <li>• current statutory approvals for the development;</li> <li>• approved strategies, plans or programs required under the conditions of this consent;</li> </ul>	9.5

Consent/Licence	Condition	Requirement	Section
		<ul style="list-style-type: none"> <li>a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;</li> <li>a complaints register, which is to be updated monthly;</li> <li>minutes of CCC meetings;</li> <li>the last five annual reviews;</li> <li>any independent environmental audit, and the Applicant's response to the recommendations in any audit;</li> <li>any other matter required by the Secretary; and</li> </ul> (b) keep this information up to date.	

Environmental Protection Licence - EPL 12425

Consent/Licence	Condition	Requirement	Section								
EPL	P1.1	<p>The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.</p> <table border="1"> <thead> <tr> <th>EPA identification no.</th> <th>Type of Monitoring Point</th> <th>Type of Discharge Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>21</td> <td>Meteorological weather monitoring</td> <td></td> <td>Meteorological weather station(s) indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12</td> </tr> </tbody> </table>	EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	21	Meteorological weather monitoring		Meteorological weather station(s) indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12	6.2
EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description								
21	Meteorological weather monitoring		Meteorological weather station(s) indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12								
EPL	L5.1	Noise generated at the premises must not exceed the noise limits presented in the table below. The locations referred to in the table below are indicated by the property identification numbers on Figure 4A Relevant Land Ownership Plan Wilpinjong Coal Mine Mining Rate Modification Environmental Assessment 17 May 2010. The property identification numbers are indicated on Figure 4B Relevant Land Ownership List Wilpinjong Coal Mine Mining Rate Modification Environmental Assessment 17 May 2010.	4.1								

Consent/Licence	Condition	Requirement	Section																														
		<table border="1"> <thead> <tr> <th>Location</th> <th>Day</th> <th>Evening</th> <th>Night</th> <th>Night</th> </tr> <tr> <td></td> <td>LAeq(15 minute)</td> <td>LAeq(15 minute)</td> <td>LAeq(15 minute)</td> <td>LA1(1 minute)</td> </tr> </thead> <tbody> <tr> <td>Wollar village</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>Goulburn River National Park</td> <td>50</td> <td>50</td> <td>50</td> <td>-</td> </tr> <tr> <td>Munhorn Gap Nature Reserve</td> <td>50</td> <td>50</td> <td>50</td> <td>-</td> </tr> <tr> <td>All other privately owned land (outside the village of Wollar)</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table> <p><i>Note: The above noise limits do not apply at properties where the licensee has a written agreement with the landowner to exceed the noise limits.</i></p>	Location	Day	Evening	Night	Night		LAeq(15 minute)	LAeq(15 minute)	LAeq(15 minute)	LA1(1 minute)	Wollar village	35	35	35	45	Goulburn River National Park	50	50	50	-	Munhorn Gap Nature Reserve	50	50	50	-	All other privately owned land (outside the village of Wollar)	35	35	35	45	
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EPL	L5.2	<p>For the purpose of condition L5.1;</p> <ul style="list-style-type: none"> <li>Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holidays.</li> <li>Evening is defined as the period 6pm to 10pm.</li> <li>Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holidays.</li> </ul>	4.1																														
EPL	L5.3	<p>The noise limits set out in condition L5.1 apply under all meteorological conditions except for the following:</p> <ol style="list-style-type: none"> <li>Wind speeds greater than 3 metres/second at 10 metres above ground level; or</li> <li>Temperature inversion conditions up to 3°C/100m and wind speeds greater than 2 metres/second at 10 metres above ground level; or</li> <li>Temperature inversion conditions greater than 3°C/100m.</li> </ol>	6.3.5																														
EPL	L5.4	<p>For the purpose of condition L5.3:</p> <ol style="list-style-type: none"> <li>The meteorological data to be used for determining meteorological conditions is the data recorded by the meteorological weather station identified as EPA identification Point 21 in condition P1.1; and</li> <li>Temperature inversion conditions (vertical temperature gradient in degrees C) are to be determined by direct measurement over a minimum 50m height interval as referred to in Part E2 of Appendix E to the NSW Industrial Noise Policy.</li> </ol>	6.1																														
EPL	L5.5	<p>To determine compliance:</p> <ol style="list-style-type: none"> <li>With the Leq(15 minute) noise limits in condition L5.1, the noise measurement equipment must be located: <ol style="list-style-type: none"> <li>approximately on the property boundary, where any dwelling is situated 30 metres or less from the</li> </ol> </li> </ol>	6.3																														

Consent/Licence	Condition	Requirement	Section
		<p>property boundary closest to the premises; or</p> <p>ii) within 30 metres of a dwelling façade, but not closer than 3 metres where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or,</p> <p>iii) where applicable within approximately 50 metres of the boundary of a National Park or Nature Reserve</p> <p>b) With the LA1(1 minute) noise limits in condition L5.1, the noise measurement equipment must be located within 1 metre of a dwelling façade.</p> <p>c) With the noise limits in condition L5.1, the noise measurement equipment must be located:</p> <p>i) at the most affected point at a location where there is no dwelling at the location; or</p> <p>ii) at the most affected point within an area at a location prescribed by conditions L5.5(a) or L5.5(b).</p>	
EPL	L5.6	<p>A non-compliance of condition L5.1 will still occur where noise generated from the premises in excess of the appropriate limit is measured:</p> <p>a) at a location other than an area prescribed by conditions L5.5(a) and L5.5(b); and/or</p> <p>b) at a point other than the most affected point at a location.</p>	6.3.5
EPL	L5.7	<p>For the purpose of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.</p>	6.3.3
EPL	O2.1	<p>All plant and equipment installed at the premises or used in connection with the licensed activity:</p> <p>a) must be maintained in a proper and efficient condition; and</p> <p>b) must be operated in a proper and efficient manner.</p>	5.2
EPL	M1.2	<p>All records required to be kept by this licence must be:</p> <p>a) in a legible form, or in a form that can readily be reduced to a legible form;</p> <p>b) kept for at least 4 years after the monitoring or event to which they relate took place; and</p> <p>c) produced in a legible form to any authorised officer of the EPA who asks to see them.</p>	6.6
EPL	M1.3	<p>The following records must be kept in respect of any samples required to be collected for the purposes of this licence:</p> <p>a) the date(s) on which the sample was taken;</p> <p>b) the time(s) at which the sample was collected;</p> <p>c) the point at which the sample was taken; and</p> <p>d) the name of the person who collected the sample.</p>	6.6
EPL	M4.1	<p>The meteorological weather station must be maintained so as to be capable of continuously monitoring the parameters specified in condition M4.2.</p>	6.2
EPL	M4.2	<p>For each monitoring point specified in the table below the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency specified opposite in the other columns.</p> <p>Point 21</p>	6.2

Consent/Licence	Condition	Requirement	Section																																			
		<table border="1"> <thead> <tr> <th>Parameter</th> <th>Unit of Measure</th> <th>Frequency</th> <th>Averaging Period</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Air temperature</td> <td>Degress celsius</td> <td>Continuous</td> <td>1 hour</td> <td>AM-4</td> </tr> <tr> <td>Wind direction</td> <td>Degrees</td> <td>Continuous</td> <td>15 minute</td> <td>AM-2 &amp; AM-4</td> </tr> <tr> <td>Wind speed</td> <td>m/s</td> <td>Continuous</td> <td>15 minute</td> <td>AM-2 &amp; AM-4</td> </tr> <tr> <td>Temperature lapse rate</td> <td>Degrees</td> <td>Continuous</td> <td>15 minute</td> <td>Part E2 &amp; E4 of the Nsw Industrial Noise Policy</td> </tr> <tr> <td>Rainfall</td> <td>mm</td> <td>Continuous</td> <td>24 hour</td> <td>AM-4</td> </tr> <tr> <td>Relative humidity</td> <td>%</td> <td>Continuous</td> <td>1 hour</td> <td>AM-4</td> </tr> </tbody> </table>	Parameter	Unit of Measure	Frequency	Averaging Period	Sampling Method	Air temperature	Degress celsius	Continuous	1 hour	AM-4	Wind direction	Degrees	Continuous	15 minute	AM-2 & AM-4	Wind speed	m/s	Continuous	15 minute	AM-2 & AM-4	Temperature lapse rate	Degrees	Continuous	15 minute	Part E2 & E4 of the Nsw Industrial Noise Policy	Rainfall	mm	Continuous	24 hour	AM-4	Relative humidity	%	Continuous	1 hour	AM-4	
Parameter	Unit of Measure	Frequency	Averaging Period	Sampling Method																																		
Air temperature	Degress celsius	Continuous	1 hour	AM-4																																		
Wind direction	Degrees	Continuous	15 minute	AM-2 & AM-4																																		
Wind speed	m/s	Continuous	15 minute	AM-2 & AM-4																																		
Temperature lapse rate	Degrees	Continuous	15 minute	Part E2 & E4 of the Nsw Industrial Noise Policy																																		
Rainfall	mm	Continuous	24 hour	AM-4																																		
Relative humidity	%	Continuous	1 hour	AM-4																																		
EPL	M5.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	8.0																																			
EPL	M5.2	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.	8.0																																			
EPL	M5.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	8.0																																			
EPL	M5.4	The record must be produced to any authorised officer of the EPA who asks to see them.	8.0																																			
EPL	M6.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	8.0																																			
EPL	M6.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	8.0																																			
EPL	R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: a) a Statement of Compliance; and b) a Monitoring and Complaints Summary. At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	9.4																																			
EPL	R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below.	9.4																																			
EPL	R1.5	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date	9.4																																			

Consent/Licence	Condition	Requirement	Section
		the transfer was granted (the 'due date').	
EPL	R1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA	9.4
EPL	R1.7	Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	9.4
EPL	R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.	9.1
EPL	R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred. Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	9.1
EPL	R4.1	A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the second round of quarterly monitoring. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include: a) an assessment of compliance with noise limits presented in Condition L5.1; and b) an outline of any management actions taken within the monitoring period to address any exceedences of the limits contained in Condition L5.1.	9.4



## Appendix 2: Noise Management Plan Consultation



SF17/8470

Mr Blair Jackson  
General Manager  
Wilpinjong Coal Mine  
Locked Bag 2005  
MUDGEES NSW 2850

Attention: Kieren Bennetts

22 June 2017

Dear Mr Jackson

### Wilpinjong Coal Mine - Revised Management Plans

I refer to the various revised management plans for the Wilpinjong Coal Mine (the Mine) received by the Environment Protection Authority (EPA) on 1 June 2017.

Thank you for forwarding the draft air, blast, noise and water management plans to the EPA. The EPA encourages the development of Environmental Management Plans/Programs to ensure that proponents have determined how they will meet their statutory obligations and environmental objectives as specified by any Project/Development Approval and/or the conditions of an environment protection licence. Please note the EPA does not review these plans/programs (unless in circumstances deemed necessary) as the role of the EPA is to set conditions/criteria for environmental protection and management, not to be directly involved in the development of strategies to comply with such conditions/criteria. As such the EPA will not be reviewing or endorsing the Plans.

As a management tool, such plans should assist the Mine in meeting their commitment to statutory compliance and wider environmental management and where appropriate should be integrated with other operational or management plans. The EPA recommends that such plans be audited to an industry standard or certified to the ISO 14001 standard (if applicable) as part of any overall environmental management system.

Should you have any further enquiries in relation to this matter please contact Ms Sheridan Ledger at the Central West (Bathurst) Office of the EPA by telephoning (02) 6332 7608.

Yours sincerely



**DARRYL CLIFT**  
Head Central West Unit  
Environment Protection Authority

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PO Box 1388 Bathurst NSW 2795  
Level 2 203-209 Russell St Bathurst  
Tel: (02) 6332 7600 Fax: (02) 6332 7630  
ABN 43 692 285 758  
[www.epa.nsw.gov.au](http://www.epa.nsw.gov.au)

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Mr Kieren Bennetts  
Environment and Community Manager  
Wilpinjong Coal  
Locked Bag 2005  
Mudgee NSW 2850

Dear Mr Bennetts

**Wilpinjong Coal Mine (05\_0021)  
Management Plans**

I refer to the revised management plans submitted to the Department following approval of the recent modification application for the Wilpinjong Coal Project (05\_0021).

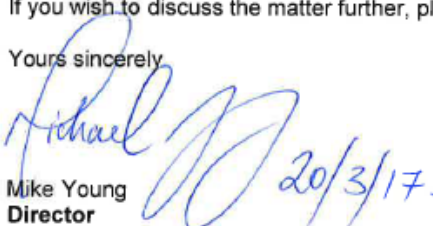
The Department has reviewed the management plans and is satisfied that the following plans are adequate:

- Noise Management Plan;
- Blast Management Plan;
- Air Quality Management Plan;
- Site Water Management Plan;
- Biodiversity Management Plan;
- Aboriginal Cultural Heritage Management Plan;
- Waste Management Plan;
- Spontaneous Combustion Management Plan; and
- Environmental Management Strategy.

Consequently, the Secretary approves the above mentioned plans.

If you wish to discuss the matter further, please contact Matthew Riley on 9274 6339.

Yours sincerely,



Mike Young  
**Director**  
**Resource Assessments**  
As nominee of the Secretary

20/3/17.



Contact: Chris Schultz  
Phone: 02 4224 9478  
Fax: 02 4224 9470  
Email: [Christopher.Schultz@planning.nsw.gov.au](mailto:Christopher.Schultz@planning.nsw.gov.au)

Mr Kieren Bennetts  
Environment and Community Manager  
Wilpinjong Coal Mine  
Locked Bag 2005  
MUDGEES NSW 2850

Dear Mr Bennetts,

**Wilpinjong Coal Mine (PA 05\_0021)  
Approval of Management Plans**

I refer to the following Management Plans required under Project Approval 05\_0021 (the approval), submitted to the Department for consideration:

- Noise Management Plan – Document No. WI-ENV-MNP-0001 dated May 2014;
- Blast Management Plan - Document No. WI-ENV-MNP-0003 dated May 2014, including the Blast Fume Management Strategy dated May 2014;
- Water Management Plan - Document No. WI-ENV-MNP-0006 dated November 2014, including the Site Water Balance, Erosion and Sediment Control Plan, Surface Water Management and Monitoring Plan, Groundwater Monitoring Program and Surface and Groundwater Response Plan; and
- Spontaneous Combustion Management Plan – Document No. WI-ENV-MNP-0010 dated May 2015.

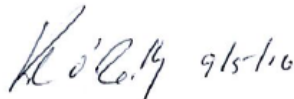
The Department has reviewed the plans and is satisfied that they generally address the requirements set out in the relevant conditions of the approval. Accordingly the Secretary has approved the management plans.

It is requested that the issues identified in Attachment 1 are addressed either prior to the publishing of the management plans on the website or in the next revision of the document.

A copy of these management plans is to be placed on the website in accordance with Schedule 5, Condition 11 of the approval within one month of the date of this letter.

Should you wish to discuss the above matter, please contact Chris Schultz, Senior Compliance Officer, on 02 4224 9478 or [Christopher.Schultz@planning.nsw.gov.au](mailto:Christopher.Schultz@planning.nsw.gov.au).

Yours sincerely



Katrina O'Reilly  
**Team Leader Compliance Southern Region**  
*as nominee of the Secretary*



Our reference : EF13/3858; DOC13/84205  
Contact : Mr Andrew Helms; (02) 6332 7604

Mr Kieren Bennetts  
Environment and Community Manager  
Wilpinjong Coal Pty Limited  
Locked Bag 2005  
MUDGEE NSW 2850

2 December 2013

Dear Mr Bennetts

#### WILPINJONG COAL – NOISE MANAGEMENT PLAN

I refer to your letter to the Environment Protection Authority (EPA), dated 30 October 2013, seeking comment on the modified noise management plan titled *Wilpinjong Coal - Noise Management Plan, October 2013, Document No. WI-ENV-MNP-EV011* prepared for the Wilpinjong coal mine.

The EPA encourages the development of such plans to ensure that proponents have determined how they will meet their statutory obligations and environmental objectives as specified by conditions of the operator's environment protection licence. However, the EPA generally does not review these documents as our role is to set environmental objectives for environmental management, not to be directly involved in the development of plans to achieve those objectives.

The EPA notes that there is an incorrect reference to the *Protection of the Environment Operations Act, 1997* under Section 1.1 – Definitions, and that there are references to OEH rather than the EPA in Figure 3, Section 9.0 and Appendix 1.

Should you have any enquiries in relation to these matters please contact Mr Andrew Helms at the Central West (Bathurst) Office of the EPA by telephoning (02) 6332 7604.

Yours sincerely



**DARRYL CLIFT**  
Head Central West Unit  
Environment Protection Authority

PO Box 1388 Bathurst NSW 2795  
Level 2, 203 – 209 Russell Street Bathurst NSW 2795  
Tel: (02) 63 327 600 Fax: (02) 63 327 630  
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**Appendix 3: Sound power level data obtained from  
Wilpinjong Extension Project – EIS 2016**

PROJECT DAYTIME PLANT AND EQUIPMENT SOUND POWER LEVELS (SWL)

Project Daytime Plant and Equipment Sound Power Levels (SWL) (dBA re 1 $\mu$ W)

		SWL	2018		2020		2024		2028		2031	
		per Item (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)
24 Hours Operational Mobile Plant	Atlas Copco Pit Viper 235 Drill	120	3	124	3	124	3	124	3	124	2	123
	Atlas Copco D65 Hammer Drill	120	3	124	3	124	3	124	3	124	2	123
	Liebherr 9400	121	2	124	2	124	2	124	2	124	2	124
	Liebherr 9350	121	4	127	4	127	4	127	2	124	1	121
	Cat 854G Wheel Dozer	117	3	122	3	122	3	122	2	120	2	120
	Cat D10T Dozer (Pit)	122	4	128	4	128	4	128	2	125	2	125
	Cat D10T Dozer (Dump)	122	3	126	3	126	3	126	2	125	1	122
	Cat D10T Dozer (Stockpile)	122	1	122	1	122	1	122	1	122	1	122
	Cat D11R Dozer (Stockpile)	125	2	128	2	128	2	128	2	128	2	128
	Cat D11R Dozer other (ripping)	125	2	128	3	130	3	130	3	130	2	128
	Cat D11R Production Dozer	125	7	134	6	133	6	133	5	132	5	132
	Cat 789 Truck	125	32	140	25	139	32	140	20	138	14	136
	Cat 16M Graders	115	4	121	4	121	4	121	3	120	2	118
	Cat 994H Wheel Loader	120	2	125	2	123	2	123	2	123	2	123
Haulmax Water Truck	116	3	121	3	121	3	121	3	121	2	119	
DAYTIME ONLY (Topsoil Removal/Rehab/Clean-up)	Cat D10R Dozer	122	1	122	1	122	1	122	1	122	1	122
	Cat 637 Scraper	111	1	111	1	111	1	111	1	111	1	111
	Cat 773 Watercart	116	1	116	1	116	1	116	1	116	1	116
	25 Tonne Excavator	112	1	112	1	112	1	112	1	112	1	112
DAYTIME ONLY (Road Maintenance and Watering)	Cat 16H Grader	115	1	115	1	115	1	115	1	115	1	115
	10 Tonne Drum Roller	109	1	109	1	109	1	109	1	109	1	109
	18,000 Litre Watercart	113	2	116	2	116	2	116	2	116	2	116
	Cat D6R Dozer	116	1	116	1	116	1	116	1	116	1	116
<b>Total Mobile Plant (excluding Construction Fleet)</b>			<b>84</b>	<b>142.3</b>	<b>77</b>	<b>141.7</b>	<b>84</b>	<b>142.3</b>	<b>64</b>	<b>140.8</b>	<b>51</b>	<b>139.7</b>



PROJECT DAYTIME PLANT AND EQUIPMENT SOUND POWER LEVELS (SWL)

		SWL	2018		2020		2024		2028		2031	
		per Item (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)
DAYTIME ONLY (Indicative Maximum Construction Earthworks Fleet)	4WD	90	3	95	-	-	3	95	-	-	-	-
	10t tip truck	100	4	106	-	-	4	106	-	-	-	-
	CAT 725C Articulated Truck	117	4	123	-	-	4	123	-	-	-	-
	CAT 621H Open Bowl Scrapper	110	6	118	-	-	6	118	-	-	-	-
	CAT 950K Wheel Loader	112	1	112	-	-	1	112	-	-	-	-
	CAT 324D Excavator	112	1	112	-	-	1	112	-	-	-	-
	10 t water cart	113	2	116	-	-	2	116	-	-	-	-
	CAT 140M Grader	113	1	113	-	-	1	113	-	-	-	-
	CAT D10 Dozer	122	1	122	-	-	1	122	-	-	-	-
	CAT 825 Compactor	108	2	111	-	-	2	111	-	-	-	-
<b>Total Construction Mobile Plant</b>			<b>25</b>	<b>127.1</b>	<b>-</b>	<b>-</b>	<b>25</b>	<b>127.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Mobile Plant (including Construction Fleet)</b>			<b>109</b>	<b>142.4</b>	<b>77</b>	<b>141.7</b>	<b>109</b>	<b>142.4</b>	<b>64</b>	<b>140.8</b>	<b>51</b>	<b>139.7</b>
24 Hours Operational Fixed Plant	Coal Preparation Plant	120	1	120	1	120	1	120	1	120	1	120
	Belt Press Filter	111	1	111	1	111	1	111	1	111	1	111
	ROM Bin & Feeder	106	2	109	2	109	2	109	2	109	2	109
	Reject Bin	109	1	109	1	109	1	109	1	109	1	109
	Sizer and Crashers	116	2	119	2	119	2	119	2	119	2	119
	Stockpile Discharge	100	4	106	4	106	4	106	4	106	4	106
	Transfer Station	100	4	106	4	106	4	106	4	106	4	106
	Train Loadout Bin	113	1	113	1	113	1	113	1	113	1	113
	Locos	100	3	105	3	105	3	105	3	105	3	105
	Raw Coal Conveyor	99 -102	5	109	5	109	5	109	5	109	5	109
	Reject Conveyor	99	1	99	1	99	1	99	1	99	1	99
	Product Conveyor	100	4	108	4	108	4	108	4	108	4	108
	Reclaim Conveyor	106	1	106	1	106	1	106	1	106	1	106
Train Loadout Conveyor	106	1	108	1	108	1	108	1	108	1	108	



PROJECT DAYTIME PLANT AND EQUIPMENT SOUND POWER LEVELS (SWL)

	SWL per Item (dBA)	2018		2020		2024		2028		2031	
		Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)
Total Fixed Plant		31	124.2	31	124.2	31	124.2	31	124.2	31	124.2
Total Mobile and Fixed Plant (excluding Construction Fleet)		115	142.3	107	141.7	114	142.3	94	140.9	81	139.9
Total Mobile and Fixed Plant (including Construction Fleet)		140	142.5	107	141.7	139	142.4	94	140.9	81	139.9

PROJECT EVENING/NIGHT-TIME PLANT AND EQUIPMENT SOUND POWER LEVELS (SWL)

Project Evening/Night-time Plant and Equipment Sound Power Levels (SWL) (dBA re 1pW)

	SWL per Item (dBA)	2018		2020		2024		2028		2031		
		Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	
24 Hours Operational Mobile Plant	Atlas Copco Pit Viper 235 Drill	120	3	124	3	124	3	124	3	124	2	123
	Atlas Copco D65 Hammer Drill	120	3	124	3	124	3	124	3	124	2	123
	Liebherr 9400	121	2	124	2	124	2	124	2	124	2	124
	Liebherr 9350	121	4	127	4	127	4	127	2	124	1	121
	Cat 854G Wheel Dozer	117	3	122	3	122	3	122	2	120	2	120
	Cat D10T Dozer (Pit)	122	4	128	4	128	4	128	2	125	2	125
	Cat D10T Dozer (Dump)	122	3	126	3	126	3	126	2	125	1	122
	Cat D10T Dozer (Stockpile)	122	1	122	1	122	1	122	1	122	1	122
	Cat D11R Dozer (Stockpile)	125	2	128	2	128	2	128	2	128	2	128
	Cat D11R Dozer other (ripping)	125	2	128	3	130	3	130	3	130	2	128
	Cat D11R Production Dozer	125	7	134	6	133	6	133	5	132	5	132
	Cat 789 Truck	125	32	140	25	139	32	140	20	138	14	136
	Cat 16M Graders	115	4	121	4	121	4	121	3	120	2	118
	Cat 994H Wheel Loader	120	2	125	2	123	2	123	2	123	2	123
	Haulmax Water Truck	116	3	121	3	121	3	121	3	121	2	119
DAYTIME ONLY (Topsoil Removal/Rehab/Clean-up)	Cat D10R Dozer	-	-	-	-	-	-	-	-	-	-	-
	Cat 637 Scraper	-	-	-	-	-	-	-	-	-	-	-
	Cat 773 Watercart	-	-	-	-	-	-	-	-	-	-	-
	25 Tonne Excavator	-	-	-	-	-	-	-	-	-	-	-
DAYTIME ONLY (Road Maintenance and Watering)	Cat 16H Grader	-	-	-	-	-	-	-	-	-	-	-
	10 Tonne Drum Roller	-	-	-	-	-	-	-	-	-	-	-
	18,000 Litre Watercart	-	-	-	-	-	-	-	-	-	-	-
	Cat D6R Dozer	-	-	-	-	-	-	-	-	-	-	-
<b>Total Mobile Plant (excluding Construction Fleet)</b>		<b>75</b>	<b>142.2</b>	<b>68</b>	<b>141.6</b>	<b>75</b>	<b>142.2</b>	<b>55</b>	<b>140.7</b>	<b>42</b>	<b>139.6</b>	

PROJECT EVENING/NIGHT-TIME PLANT AND EQUIPMENT SOUND POWER LEVELS (SWL)

	SWL per Item (dBA)	2018		2020		2024		2028		2031	
		Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)
DAYTIME ONLY (Indicative Maximum Construction Earthworks Fleet)	4WD	-	-	-	-	-	-	-	-	-	-
	10t tip truck	-	-	-	-	-	-	-	-	-	-
	CAT 725C Articulated Truck	-	-	-	-	-	-	-	-	-	-
	CAT 621H Open Bowl Scraper	-	-	-	-	-	-	-	-	-	-
	CAT 950K Wheel Loader	-	-	-	-	-	-	-	-	-	-
	CAT 324D Excavator	-	-	-	-	-	-	-	-	-	-
	10 t water cart	-	-	-	-	-	-	-	-	-	-
	CAT 140M Grader	-	-	-	-	-	-	-	-	-	-
	CAT D10 Dozer	-	-	-	-	-	-	-	-	-	-
	CAT 825 Compactor	-	-	-	-	-	-	-	-	-	-
<b>Total Construction Mobile Plant</b>		-	-	-	-	-	-	-	-	-	-
<b>Total Mobile Plant (including Construction Fleet)</b>		<b>75</b>	<b>142.2</b>	<b>68</b>	<b>141.6</b>	<b>75</b>	<b>142.2</b>	<b>55</b>	<b>140.7</b>	<b>42</b>	<b>139.6</b>
24 Hours Operational Fixed Plant	Coal Preparation Plant	120	1	120	1	120	1	120	1	120	120
	Belt Press Filter	111	1	111	1	111	1	111	1	111	111
	ROM Bin & Feeder	106	2	109	2	109	2	109	2	109	109
	Reject Bin	109	1	109	1	109	1	109	1	109	109
	Sizer and Crushers	116	2	119	2	119	2	119	2	119	119
	Stockpile Discharge	100	4	106	4	106	4	106	4	106	106
	Transfer Station	100	4	106	4	106	4	106	4	106	106
	Train Loadout Bin	113	1	113	1	113	1	113	1	113	113
	Locos	100	3	105	3	105	3	105	3	105	105
	Raw Coal Conveyor	99 -102	5	109	5	109	5	109	5	109	109
	Reject Conveyor	99	1	99	1	99	1	99	1	99	99
	Product Conveyor	100	4	108	4	108	4	108	4	108	108
	Recalim Conveyor	106	1	106	1	106	1	106	1	106	106
	Train Loadout Conveyor	106	1	108	1	108	1	108	1	108	108

PROJECT EVENING/NIGHT-TIME PLANT AND EQUIPMENT SOUND POWER LEVELS (SWL)

	SWL per Item (dBA)	2018		2020		2024		2028		2031	
		Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)	Total Fleet (incl. Standby)	Overall SWLs (dBA)
<b>Total Fixed Plant</b>		31	124.2	31	124.2	31	124.2	31	124.2	31	124.2
<b>Total Mobile and Fixed Plant (excluding Construction Fleet)</b>		106	142.3	98	141.6	105	142.2	85	140.8	72	139.7
<b>Total Mobile and Fixed Plant (including Construction Fleet)</b>		106	142.3	98	141.6	105	142.2	85	140.8	72	139.7